

Cusick

Unmow Oregon
July. 20th 1878

My Dear Sir:-

Herewith I
send you a package of
plants for determination
Part were collected in
western Oregon, part on
the road from there here
and the rest here
I should, probably, have
not sent them till fall.
but the hostile indians
are coming so close
there is some danger
~~that~~ of my having them
destroyed.

Some of the plants are
mentioned as from the
Eagle Creek Mtns. These
mountains are in this Co

~~Between~~ North of Poudre
River + the highest I
know of, in this vicinity -

The seeds &c. you
wished me to send you
I shall try to send this
fall. My criticisms on
my notes on specimens
will be acceptable

Have also, through
Mr. Hoolson, your flora of
N.H.. Though I am not qual-
ified to criticize I doubt
not it is a most excel-
lent work + trust you
may be spared to complete
it

Very Truly Yours
Wm C. Cusick

1
List of Plants from the
C. Curtis, Union Co Oregon
July. 1878

✓ 548 *Menyanthes nemoralis* L.
Early spring. Willamette
Valley.

✓ 555 *Cypripedium acaule*, Salisb.
Greenish white some of the
flowers are only staminate
Thick woods Cascade Mts
June 8. April 1878

✓ 628 *Lupinus latifolius*, Dougl.
Purple dry mtn ridges
(this co.) June

68 *Astragalus Cusickii*
Fruit

5⁷⁶~~57~~ *Arenaria*? = *Cerastium arvense*, L.
White - Dry gravelly soil, lower
Cascades (Col. Riv.) April. M.

5637 *Arenaria Congrata*!
White. Low mtn. Heavy soil
rare. June. (Have sent spec.
of this to Mr. Hoolson)

561⁸ *Thlaspi alpestre*, L.
White. Eagle Creek mtns
Dry hillsides. June.

5633 *Arabis hirsuta*, Scop.
White. Stream banks rare
May June

582 *Cleome lutea*, Hook
Bright yellow. Very disagreeable odor! In sand about
mouth of Umatilla Riv. April. M.

1605 *Capsella divaricata*, Walp.

White. Rare in grain field
spring

1604 *Thelypodium laciniosum*, Nutt.

Rare white. Biennials, 6'-18'

Much branched at root, often.

Rare in clefts of rocks M. Jun

1591 *Salvia?* = *Ambrosia incana*

Blue purple. In rocky hill

lower Unatilla April, M. (just

coming into blossom)

1590 ~~1614~~ *Oenothera strigulosa*, 789.

Yellow

White. Sandy soil lower Un-

tilla April, M.

1619 *Oenothera Gayophytum diffusum*, 789.

White. Euge Crested Mtns

Dry ridges. June

1604 *Epilobium organifolium*, Lam.

Purple in & along small mtn

streams. June Jul (sent you

spec. of this last year)

1627. *Claytonia Chamissonis*, Esch.

White. The stolons producing

- glaucous buds, which send
up near plantlets. Wet soil
High (Eagle Creek) Mtns. June
- 5629 *Claytonia triphylla*, Wats.
White, moist ground Eagle
Creek Mtns. June (In connection
with & considerably resembling
Hesperochloa pumilus)
- 5602 *Monarda fontana*, L.
Along small vernal streams
High hills June
- 5581 *Oenothera inaequalis*, Nutt.
Light blue 3rd - 7th. Deciduous. May
Hill side back of Dallas City.
- 5646 *Anemone foliosa*, Nutt.
Yellow. Wet sandy soil. Common
June 1st.
- 5636 *Suaeda tomentosa*?
Yellow common on high hills
open ground June.
- 5635 *Crepis occidentalis*
Yellow common on high hills
June

- 15842 *Antennaria racemosa*
White. Dry mtn sides, Eagle
Creek, June
- 1628 *Erigeron decumbens*
Purple. Dry mtn ridges Eagle
Creek, mtns. June
- 1595 *Balsamorhiza* ^{Hookeri, pinnatifida} ~~*B. tenbryniana*~~
Crawford's Hill Blue. mtns.
(One spec. only coll.)
- 1584 *Townsendia grandiflora*
Pinkish. 3'-4' Low on mountains
Sandy soil. April, m.
- 1598 *Antennaria lugoloides*
White. Common on low ridges
May.
- 1630 *Bahia oppositifolia*.
Yellow. Dry soil, Eagle Cr. mtns.
June.
- 1643 *Gaillardia aristata*
Rays yellow disk brownish
red. Grand Round Valley.
dry soil June July.

- 1618 *Collomia linearis*, var. *subulata*
~~Collomia~~ White! (sometimes pale
 yellow.) Sunny rocky mtn
 sides. Eagle Creek mtns. June.
 (This resembles a small form of
C. grandiflora but is found in
 high mtns & blooms at least
 a month earlier than the latter)
- 1624 *Hydrophyllum Virginicum*
 White. Inside of corolla lobes
 purple. Wet soil. Subalpine
 Eagle Creek mtns. June (Have
 sent spec. of this to Mr. Woodson)
- 1622 *Chimaphylla Menziesii*
 Not in full bloom when Collected
 Eagle Creek mtns.
- 1658 *Monotropa hypopitys*
 Tawny. Thick timber on low
 mtns. July.
- 1653 *Diarella unifoliata*, Hook.
 (Flowers not seen. San Juan River
 Gunn Co. Col. in winter)

1 560 *Saxifraga virginiana*, Mx 7
White. On rocks Sautem Riv.
Linn Co. Marsh,

580 *Fraseria nitida*; Benth (ex)
Blue On hill back of Dallas
Perennial! (*F. speciosa* - the
common form - grows for several
years (4 or 5 at least) then
blooms & invariably dies.)

5623 *Reutsteium ovatum*
Deep blue purple 1st 2nd much
branched at root. Rocky hill
sides Eagle Creek June (sent
Mr. Wootson spec.)

5645 *Veronica purpurea*
Thick Wet soil common.
common.

5644 *Reutsteium gracilentum*
Blue Low wet ridge. rare
June.

5609 *Polygonum tenuifolium*, Mx. -
var. *laeve* - Engelm.
Hill sides. Stems often red
June

- 15647 *Eriogonum nudum*, Dougl. - var. *paniculatum*
 Dull white or pinkish white ^{stripes}
 down center of sepal. Cliffs
 low mts. Rare. Feb.

1558. *Garrya fremontii*, Torr.

Diocious. On rocks subalpine
 Cascade Mts (Lincoln Co.) A low
 Ceanothus looking shrub. Early
 spring.

- 643, *Saillandia aristata*.
- 644, *Pentstemon gracilentus*.
- 645, *Veronica peruviana*.
- 658 ~~Monarda~~ *Monarda hypoleuca*
- 622 *Chimaphila Menziesii*.
- 624 *Hydrophyllum virginicum*.
- 630 *Bartonia oppositifolia*.
- 578 *Antennaria leucoides*.
- 595, *Balsamorhiza horkii*, ~~from~~
to *B. laetifolia*.
- 628, *Erigeron decumbens*.
- 642, *Antennaria racemosa*.
- 635, *Erigeron occidentalis*.
- 646, *Anemone foliosa*.
- 636, *Suaeda tomentosa*?
- 591, *Audubonia incana*.
- 586, *Astragalus succumbens*.
- 588 " ? for want of fruit.
- 593, " "

of collection no Dec 1876

- 109 = *Carex festiva*
- 66 " *Jamesii*
- 607 " *Souglasii*
- 599 " " *quadrilobus* form?

- 5565 *Proserpinaca Menziesii*, Don
White. W. hillsides, Willamette
Valley. Spring
- 5566 *Proserpinaca Oregonica*, Watson
White. Same habitat & time
of blooming as preceding.
- 5567 *Pittillaria lanceolata*, Pursh
Dark purple. Willamette val
ley, Spring.
- 5594 *Calochortus elegans*!
Crawfords Hill blue mtn
- 5610 *Calochortus elegans*, B. H. ^{var. *viridiflorus*}
Low mtns Union Co. June.
- 5621 *Calochortus strictus*, Lindl.
Purple, Eagle creek mtns.
Rare, (Western Oregon also)
- 5561 *Lithospermum cordata*, R. Br.
Greenish. Common in thick

mossy woods, Linn Co.
 Spring (sometimes tinged
 purple)

↓ 659 *Habenaria gracilis*, Watson
 Green. Growing in small
 mountain stream bed. (One
 spec. only seen)

↓ 576 *Cheilanthes gracillima*, Watson
 On rocks higher Cascade
 Mtns Linn Co,

A list of some plants from W.C. Crag,
 Union Dr. 1880 - returned Feb. 1881.

909 Salix lucida, Muhl., var. accidentalis.
 Along stream. Early spring

908 Salix

Same as 909

875 Salix cordata, Muhl., var.

Same as preceding

826 Salix - not reported upon. Do not mistake it in fruit

Alpine bog &c (sent early year, you
 reported it sent to Mr. Britt.)

896. Arabis lyallii, Watson

White alpine dry soil Aug.

892. Campanula hastata, Watson.

One very white; damp Alder thickets al-
 pine 3-4

644^a + 644, Pentstemon gracilentus = P. attenuatus, Dougl.

The form 644 was sent 2 or 3 years ago most
 likely in fruit. You named it as above
 This yr sent specimens 644^a &.
 Dr. Gray said not P. gracilentus the
 flowers different. Thought it was
 an open form of P. confertus
 These two are the same, I think, 644 in

more sterile soil. It looks, in general appearance, much more like a slender form of P. globosus. It differs from P. confertus in atleast one point. The latter in all its various forms is inclined to branch below the ground - stolomiferous like, commonly sending up but one stem in a place.

There^(644 & 644a) are much branched above the ground, that is at the surface. after the manner of P. globosus.

484 Helianthus Nuttallii Torr. (wet soil)

3rd of 1st I suppose. Sent some years ago, I now send better spec. which no doubt you can name.

891. Asiatic Nuttallii, Watson - staminate
Sterile soil Aug.

683 actis Cusickii, Gray (1 spec. in long washed river)

910 Antennaria Carpathica, DC. - low form
alpine. Sep. 8000 ft.

904. Hieracium triste, Willd., var. deboussium, Gray
yellow, alpine 10000 ft. (dry soil sep)

905 - Achillea alpinum, Gray (+ probably A. pulchellum, Eaton)
Purple white the preceding.

- 907 ~~Ptilocaulis~~ = Stylocline folaginosa, Gray
sterile soil - June
- 730 Aplopappus laingianus, Gray
climb last year. You said it sp. but don't
yet know the name.
- 208 Rosa Nutkana & low mtn's 2°-3°
- 906 Sibbaldia Ivesia Gordonii, Torr. & Gr.
Yellow turning white as they fade - grow
in sand Eagle Creek mtn's 10000 ft,
Sep.
- 886 Carex - too young.
- 889 Carex filifolia, Nutt.
("Wool grass") Northern slopes. a very Ten-
= Ciou sod.
890. Poa — ?
on low mtn's in unusually damp soil
June
- 815 Danthonia sericea, & Nutt.
So named from poor spec. sent
last year, there are better, I hope
882. Festuca occidentalis, Hook.
Subalpine
- 881 ("Pine grass") Poa cinisii, All.
Subalpine in open pine wood
very common

- 880 Triticum caninum, L. (4!)
 Low mts dry soil
- 879 Triticum commune, Trin.
 Subalpine, Dry soil
- 878 Festuca microstachys, Nutt.
 the same
- 877 Luzula comosa, Meyer
- 876 Melica, Geyeri, Munro
- 898 Stipa occidentalis, Thurb., or near it.
 alpine Dry soil - Sept.
- 900 Melica bubosa, Geyr
- 764 Triticum repens, L. ("Blue joint")
 Native! In moist meadows forming a dense cover 2° 3°
- 763 Triticum repens, L.
 Native! More in "strata" than the preceding & commonly dryer soil 3°-4° I sent these last year but you wanted more spec. before naming.
- 885 Claytonia caroliniana var serotifolia, Torr
 Have you seen any "rubble leaf"
 Early spring.
- 887 Ranunculus flammula, L., var. reptans
 yellow. In soil that is wet in spring but dry after. Subalpine - May here.

(57)

~~small~~ ^{prostrate} ~~like~~ narrow leaved form of *L. polystachya*, L.
The broody leaved specimens seem to be *L. Anandria*.

193 *Lathyrus* *ovatus*?

888 *Lathyrus* *polymorphus*, Nutt., notwithstanding
the less developed tendrils
Purple - Dry hillside, June

756 *Lathyrus* *remorus*, Muhl., as called, but hardly the same
(Fruit-) Flowering sp. sent last yr as
you could not name - wanted fruit

122 *Spirea* *betulaefolia*, Pall.

White - common shrub 12-18' on low
mountains. Commonly reaching up
but only a two ~~single~~ stems from the root.

883 *Epigonum* *medium*, Fries

Pink. damp soil. Closing in cloudy
weather. As a Union

872 *Memphila* *parviflora*, Benth.

White - with purple spots. Wet soil

873 *Memphila* *brexiflora*? (Form

253 *Aquilegia* *flavescens* & *flavescens*, Watson
Alpine yellow varying to red

830 *Sambucus* *racemosa*

Black fruit - sent last year

Pink brown or orange

I am so far, neither of them in between with others from

94 *Habenaria* *dititata*? *leucostachya*, Link.

893 *Coralorhiza* *innata*, R. Br.

Alpine moist shade any,

(6) The other, and before, seems to be a
distinct species.

214 Sedum Douglasii!

I have always called this. But spec
of another sp. sent in the summer
Dr Gray says = Bolander's of Mendocino
Co. referred to Douglasii. I shall send
roots of these (214) first of two others
if I can get them this fall.

894 Phacelia circinata (alpine perennial ^{8000 ft})

895 Mitella pentandra, Hook (alpine)

897 Lophanthus urticatifolius, Bth.

alpine dry soil

901 Viola canina, L., var. rupicola, Rept.

8000 ft. Eagle Creek mts Sep.

902. Pellaea Breweri, Eaton

On Rocks 8000 ft.

903 ~~Potentilla~~? Gilia Larseni, Gray

white veined purple Anthers blue

Dry granite land, 10000 ft, Sep.

850 Arenaria Fendleri, Gray

Sent in the summer & Dr Gray said
save some for Watson. on sterile sub-
alpine ridge near the mining village of
Hog'em June.

858

Allium, near A. parvum, Kell., but probably new.

Sent at the same time & left for you (Call. near the same place & at same time)

861 Beltia - Do not know yet

also sent in summer but - could not - be determined for want of fruit
I send all I have.

448 Epilobium tetragonum (again)

the common form

911 Epilobium - the small spec. white
Alpine the large subalpine, purple
both grow in beds of small streams
and have the bulb like clusters of leaves
at root - ~~the~~ similar to 448, but I think
they are distinct from it. I have not
seen any forms of either (448-911) that
seem to approach any nearer than those
sent, and I have been noting them
all pretty carefully this summer

464 E. organifolium (the common form)

821 Alpine form in dry soil - Proven-
ient - & differing considerably in
general appearance. The specimen
sent - 821 - is small

Epilobium alpinum, L.

The altitudes when given are
only guesses

911. The large possibly E. organifolium
The small probably reduced E. tetragonum

list of Plants sent by Wm. B.
Cusick April 9. 1882

- 88 *Erigeron* ^{flavus, Nutt.} ~~*caespitosus*~~ ^{with} ~~There always~~
called this but it seems just
like what you call *S. sphaer-*
rocephalum. Wryh.
992 *Urtica* ~~*hyattii* *Wats.*~~ ^{*holosericea*, Nutt.} 3°-4° stream-
bank etc. Common
971 *Phlox longifolia*, Nutt.
Ruttes decumbent - 10 or more high
a very pretty species.
968 *Salix Barclayi*, Auden. I have
never sent you (Mr. Bickel determines
978 *Pentstemon* ^{*triflorus*, Bunge} ~~*densatus*~~ ^(Frut.)
call it but I think must

be wrong. There are the follow-
ing differences: 968 has leaves
in whorls of 4-5 is much more
branching & slender & decumbent
also blooms nearly 3 months
later. - One plant only seen grow-
ing in face of a cliff & a few
in perfect specimens hastily
gathered. Please look at
• them again. I will send with
it a spec. of *P. densatus* as we

I send all I have of this

- have it very common -
 185- *Pentstemon rupestris*, Dougl!
 1573 *Saussurea americana*, Baker

Better spec- than before sent.

- ✓ 995 *Aplopappus glomeratus*
 or a *prostratus* var. *virgatus* - the smaller
 I think this is but different
 from the common form

- ✓ 533 *Antennaria*, *trifida*, ^{var. *rigida* Nutt.!} this
 was called when sent some
 years ago. You have perhaps
 retitled it by this time, I think
 it cannot be that.

- ✓ 996 *Antennaria biennis*? Willd.
 biennial - 1-3° prostratum. - com-
 mon on stream banks at 3000 ft.
 alp. (said in Port-Cat not to come in far
 west.)

- ✓ 414 *Thalictrum occidentale*, Gray!
 I call this but am not sure. -
 common on mountains at 4000 ft.

- ✓ 896 ~~*Thalictrum*~~ *alpestre* one of the darkest
 I ever saw. - I have not the fruit.
 You called it *Th. yallii* for me
 a year ago. but it differs in
 the roots which in the latter
 are thick like those of *Chelidonium*
~~*Thalictrum*~~ *Th. yallii*, & in having white

(3)
flowers. - white the A. Lyallii
has purple as given in Bot. Cal.
This is common & I'll try and
get fruit if you don't have it.
991 Arabis — n. sp.?

You said from flowering
specimens sent before
suffruticosus or suffruticosa
would seem to be a good name
for it, as it is woody at base.

W. C. Cusick.

Union Co., Oregon. Oct. 1884.

1204. Hypnum orthocladon Beauv.
1205. Orthotrichum sp? (anomalous?)
1206. Mnium serratum Laich.
1206'. Hypnum orthocladon Beauv. - form
nearer H. serpens than 1204.
1207. Pottia cavifolia Ehrh
1208. ? sterile.
-1209. Bryum pendulum Schp?
-1209'. Funaria hygrometrica Sibth.
-1210. Bryum roseum Schreb.
-1211. Funaria hygrometrica Sibth.
-1212. Bryum caespiticium L., (var?)
-1213. Aulacomnium androgynum Schwägr.
-1214. Bryum purpurascens. (?) B. & S.

C. R. Barnes Jan'y 1886,

Eastern Oregon Plants

from
W. C. Cressk - 1897. (Gray)

✓ 1815 ✓ 1747 Ranunculus *luteolus* Gray

1815 is peculiar showing
orange flowers.

✓ 1796 Delphinium *subalpinum* Gray
serpulorum V.

with white flowers - Rare

✓ 1619 Delphinium *menziesii* Nutt.
was called for me many

years ago. - But of course
that is wrong. Dooley

(Blue) *nitens* Pursh.

1798 Aconitum *Columbianum* Nutt.

I have sent before.

A form of the higher
nitens with yellow or white
flowers but always with
purple tinge shade.

Sometimes a yard or
more high.

~~✓ 1618 Sedalcea *spicata*?~~ Greene

1668

2

~~Buck Creek near the desert
Cook Co. June - just com-
ing into flower.~~

> 1669 *Cambya aurea* Watson.

In sand among sage-
brush - margin of the desert
Cook Co. June.

1662

Fl. white - - Margin of
the desert. Stansbury Co. June
15 - 16.

1650 *Viola Canina* var (?)

Early Spring

> 1653 *V. Nuttallii* (?)

Grass prairie - Southern
Blue mts June. -

1608 *V. Nuttallii*, as it
commonly grows here.

> 1739. *V.*

White fl. Blue mts
in bog & c. Aug.

1647. *Arenaria*

1647 *Arenaria Fendleri* Gray
this has been called
for me, but I see
that *S. species* is not
given as found here
in *Syn. Flora, Margin*
of the desert S.E. reg.
and not rare. June

1664 *Arenaria Fendleri*?

I have never seen
before - Margin of the
desert June - Rare

1775 *Silene Douglasii* (?)

From the Higher Blue Ridge
Canyon.

1778 *Leptochloa asarifolia* (?)

Higher Blue Ridge in wet
soil especially about
the base of cliffs.

1656 *Spraguea umbellata*.

Typical(?) From the Southern
Blue Mtns; Sandy soil in
open forests. - June.

1724 *Spraguea umbellata*,

S. multisepta? (A over I
suppose. The prevailing
form here. - Highest
Mtns

1668 *Sidalcea speciosa*, form?

Buck Creek. - near the
desert Creek Co. from
first coming into bloom.

1714. *Linum Lourii*, (1)

a form of the highest
Blue
mountains. 7-8000 ft.

1678 *Linum*

from the Southern Blue
Mtns. Creek Co. June 28.

- 1632 *Lupinus*
Oto Valley, Malheur Co.
Common through out
that region.
- 1716 *Lupinus*
dry open ground of the
highest Blue Mtns Aug
- 1737 *Trifolium longipes*,
It has this in many
different forms. Blue
Mtns.
- 1654 *Trifolium involutum*
meadows of the Blue Mtns
Bear Valley. June.
- 1654^a *Trifolium exocephalum* (L.)
Rupr. - This may be
an abnormal form of
Silvie's River. - S. Blue
Mtns - June.
- 1696 *Trifolium*.
Rupr. - Bear Valley
- Blue Mtns - June.

1658. *Astragalus*. (?)

Blue Valley. - Blue Co. -
 In dry sterile soils June
 1812 = 1658 - But a larger growth

Honey Valley. - June -

1690 *Astragalus*.

Mountain Creek, Grant
 Co. July 2.

1686. *Astragalus Hookerianus*
 from Lookout Mtn, Grant
 Co. June 30.

1711 *Lathyrus Nuttallii* (?)

Nittu' gulches. July.

1814 *Viola unifolia*. Har.

1697 *Losa piscoarpa* (?) May.

From the Southern Blue
 Nittu' where it seems
 to be the prevailing
 form. =

1705

Blue Nittu' of Union Co.

Found here only on the

7
ritus at about 4000
ft alt;

1770 *Poterium bungei*.

Dr Watson called this for
me many years ago.

It is not widely distrib-
uted, apparently, Blm
ritus of North Powder Riv.
4000-5000 ft alt.

1740 *Potentilla*.

Blm ritus 6000 ft. Boy's etc.

Aug.

1658- *Potentilla*

Blm ritus - Ben Valley
June. -

1709 *Spiraea betulocoloria*, var.
conumbosa, White-fl.
Low dry ritus.

1761 *Galium*

Tules of Grand Ronde Val

- Aug.

1672 *Tournefortia* -
Desert region - June

- 1636 *Aster scopulorum*, Gray
 But differs some from
 spec. previously sent
 margin of the desert
 Common - June.
- 1721 *Lolidag*
 From the highest mtn
 (Bl.) Black summit 9-9000
 feet alt.
- 1773 *S. multirostrata*, A. V.
Scopulorum, Gray
 or near it, High herb
 Blue white, base of cliffs.
 Aug.
- 1734 *Sol. missouriensis*, (?)
 I have none sent before
 broody. hillsides not
 common - Aug.
- 1658^a *Aster* (?)
 (no duplicates) S.
 Blue white.
- 1636 *A. scopulorum*, Gray.

1820 *Aster Douglasii*.

The common (typical?) form

11769 *Aster*.

Nitius (Bla) 4000 ft alt.

Perhaps a depauperate form of

11821. ~~*Aster Douglasii*~~.

Common but apparently distinct.

1794 *aster*

Eagle Creek (Powder River)

Nitius 5-6000 ft. Aug 30.

1788 *aster*.

~~Blue Nitius 5000 ft alt.~~

Eagle Creek (Powder River)

as 9.

1771 a = 1794

apparently. - Blue Nitius

1693 *Eugenia*

near F. can the Southern Blue Nit.

Ochoco co. Riv. June 30. (?)

1725 *Eugenia*

Blue Nitius

(10)

1792 *Erigeron*
White-rays. -

Trout Creek - Eagle Creek
(Poudre River) N. H.
Aug 30. - 5000 ft. ab.
Steep banks.

1694 *Erigeron*
Pink rays. Wet meadow
of the John Day's Riv.
July. 5.

1695 *Erigeron*
White-rays - with the
preceding. - Just coming
into bloom -

1736 *E. acris*? L.

1823 *Erigeron*
S. Blue N. H. June 30.

1688 *Erigeron decumbens*?
White rays. - Lookout
N. H. Crook Co. July 2.

1673^a *Antennaria* *serotina*,
I never collected before
S. Blue N. H. Crook Co. June
30. Just coming into bloom.

1673 *Antennaria carpathica* (?)
But it differs from
that as we have it here
S. Blue with Cook Co
June 30.

1631. *Oenothera Howellii* Gray,
Hight. of. Lovell Rock with
Walker Co. June 15.

1677 *Balsamorhiza sagittata*.
But differs from that we
have it here. - Hillsides
of the Ochoa Cook Co.
June 28.

1680 *Helianthus Douglasii*
Gulches of the S. Blue
with, Cook Co. June 30.

1768^a *Bidens frondosa* (?)
Tules

1660 *Tanacetum* (?)
Alkaline soil. (Hurry Vol.)
8 or June

1641 *Arnica foliosa*?
 The four common in the
 S. Blue Mtn. June 14.

1810 *Arnica*

From the highest Eagle
 Creek (Poudre River) Mtn
 8-9000 ft alt. Steep N.
 Slopes.

1795 *Arnica*

Stream-banks of Eagle
 Creek (Poudre River) Mtn.
 5000 ft alt. Aug 28.

1710 *Arnica latifolia*?

Blue Mtns, dry soil 4000
 ft alt. July.

1797^a *Arnica*

Steep banks of gulch
 Eagle Creek (Poudre River)
 Mtns Aug. 30.

1789 *Arnica*

Sterile ridges. Eagle Creek
 (Poudre River) Mtns. 5000 ft
 Aug 20.

1617 Senecio

A form from moist sub-alkaline meadows. Seen in Powder Riv. Valley only.

June - July.

This comes near the form of S. Canus that is called S. Howellii. From than anything else I have. May be a distinct spec.

1776. Senecio

In granite sand base of cliffs in Blue Mtns 7-8000 feet above g.

1674 Cinna

Wet meadows of the S. Blue Mtns

1676. Cinna.

Hillsides of Ochoco. N.
Blue Mtns June 28.

1692

Hilltops of the John Day Riv.
July 1st

- 1713 *Cepis vancouveriana* T. & G.
But differs some from
specimens sent before.
- 1665 *Doronicum pulchellum*?
margin of a small
lake near the desert
June. - But differs some.
- ~~1714 *Pyrola picta* T. & G.~~
- 1605 *Wodehousea*
D. jeffreyi, var. *grayi* along
called this, but it
seems to me that
is wrong.
- 1638 *Dodecatheon*
From the Southern Blue
Mtns - head of Otis
Creek, fr. Crane Prairie
fl. June. - is probably
the same.
- 1635 *Fraxinus*
From head of Otis Creek
Blue Mtns June 11.
Near *F. Canadensis* but
differs some.

1671

Sandy banks of S. fork of
Crooked Riv. near the head.

June 21. aristella, Gray

1672 *Gilia leptosepala*, Gray.

S. Blue mts, of the Ocher

1630 *Gilia micromeria*, Gray.

Castle Rock mts, 10 June

1737^a *Gilia Gayophytum pumilum*, Wats.

Blue mts of North Powder
5000 ft. Aug.

1629 *Mertensia Siberica*, Don
but differs from spec.
previously sent.

Castle Rock mts June
10.

1693 *Convolvulus arvensis*, Linn.

From the gravel washes
of gold mining of the
John Day. July 2.

1760 *Convolvulus*

This seems to be the same

but is thought to
be native of Grand River
valley (Union Co.)

I am told by one
of the oldest settlers
at Union that this
plant was here when
he came. 35 years
ago. Found mostly
in cultivated grounds
where it is a great
pest. The long stems
are covered with buds
which start an ^{independent} ^{growth}
pendant, whenever
the plant is disturbed
by plow or cultivator.
Apparently I have
not seen it but
in and near Union.

1637. *Rentstemon*. *Quadrifidus*, Hook.
The typical form? Have never
seen it before - S. O. Allen
Nuttall's *Herb. of Ohio* C. C. K.

>1675 *P. Richmondianus*,

I have never sent before
Cliffs of the Ochoco

>1786 *Castilleja viscidula*, Gray
this was called for me
but with a mark of
doubt. High Peak Eagle
Creek (Powder River Mts).

1742 *Castilleja pallida* Kunth.
~~Cyanus flowers~~
Is it the var. septentrionalis?

>1648 *Orthocarpus*?

From the S. Blue Vireos
Creme prairie. June 17

1702 *Orthocarpus*

I should be able to
match as it is common
in July.

>1700 *Orthocarpus*

Summit Valley. Blue Vireos
July 6. Pale yellow rarely
tinged red.

>1628

Physalis of the Malheur. June

June and June 1898 in
connection with the *C. pauciflora* group
June 19 Feb. 98.

1763 *Polygonum amphybrum?*
Tules of Grand River

1764 *Polygonum*.

With the preceding

1765 *Polygonum?*

1766 "

1691 *Eriogonum ovalifolium*, var.
Mountain Creek, Grant Co.

1759 *Chenopodium?*

Grand River Valley in
alpine soil. Aug.

1663 *Eriophyllum argenteum*, Nutt.
But more slender than
I sent before. Margin
of the desert Honey C.

1826 *Suaeda diffusa?* Nutt.
(Small) Grand River
Valley, Aug.

> 1827 *Allium Canadense*, Kalen.
Isn't this? Blue Vitis
in swampy meadows, head
waters of John Day. July
6.

1642 Allin?

Blue Vitis. Head of Otis Creek
June 14. Purple - mostly
past bloom.

1671^a

Alcaline soil near
desert.

Notes of Coll. J. & Prof.
Beck. 1897.

1820. *Aster Chamissonis*. Gray.
Late Aug. Early Sep.

Very abundant on
stream bank S. (See cat. 6.)

3. - 3500 feet alt.

1821 *Aster Fremontii* Gray.

Aug. - Early Sep. - Generally
distributed
in most situations. 3-4000
feet alt.

1769. *Aster Fremontii* Gray.

Aug. 18. Still wet. - not
dry: soil - 4000 feet. in
one place only.

1736. *Eriogonum aeneum* L.

Aug. 5. - most shady
situations. 4000 feet alt.
Blue tint. of N. Border River.

1768^a *Bidens ponderosa*, L.

Aug. 9. Tulas. of Grande
Ronde Valley. - 3000 ft
alt. only a specimen or
two seen - But evidently
native.

1713 *Crepis lunata* Torr. & G.
July. 15. Common in wet
subalpine meadows
3500 - 4000 ft.

1766 *Polygonum Rusinaria*, L.
Aug. 9. Grande Ronde
Valley. 3000 ft. alt.
Especially in the "Tulas"
may be introduced.

1768^b *Polygonum acre*, var. *leptostachyon*.
= *gymn.*, *reisseri*.

Aug. 9. Tulas of Grande
Ronde Valley.

1603 *Sedocatherum meadia*, L. var.
Late May - Early June ^{poly.} fruit
3500 ft alt. Common here.

- 1814 *Tiarella unifoliata*. ^{Hort.}
 Aug 5. Common in
 rich bog & stream-
 banks. 5-6000 feet alt.
1608. *Viola Nuttallii*. Pursh.
 Very common in 3-4000 feet
 May.
- 1650 *Viola canina* L. v. ^{gray} *adunca*
 17. June. Moist soil ~~Cross~~
 Crane Prairie, S. Blue
 Mts. 4000 feet. Probably
 not rare.
1709. *Spiraea betulae folia*, v.
Corymbosa, Hato.
 July 10. By rich sides of
 ridges. 4000 feet alt. - White
 fl. Commonly in pastoral
 lands. Very abundant
 here (remnants) but not
 seen (?) in S. Blue Mts.
 I have seen this several times
 thinking it a good species

1742. *Castilleja ovifolia*. *Grassman*
v. subintegra. *Fernald*
 Aug. 5. Common in the
 bogs &c. - never in thick
 shade - 6-8000 ft.
 Blue Vitis (But apparently
 not far from *Powder*
 Riv. (Eagle Creek) Vitis.
 Bracts deep purple red.

1798. *Scutellaria Columbianum*, *Walt.*
 Aug. 30. Bogs &c. of our
 highest Vitis. Especially
 Powder River ("Eagle Creek")
 Vitis. 6-7000 ft. alt.
 (This differs considerably
 from the form common at
 ordinary altitudes (3500 ft.)
 being much smaller &
 differently colored. The
 common form fl. in June.
 and is 4-6° high -

This small spec. of the
 common form not to year. Red-
 berry.

1796 *Delphinium scapulosum*
var *subulpinum*, Gray.

5000 feet alt.

Aug 28.

4-8°. Abundant in

dry gulches & bottomed in
the Powder River (Boyle Cr.)

Vitis. - Much more rare
in the Blue vitis proper
dark purple fl. - A white
fl. form seen and sent?

1815 *Ranunculus Luteo-dorsii* Gray.

Aug 19. Blue vitis 8000 feet
alt. about the base of diff.
in disintegrated granite
where it almost always
grows. Common in all
our vitis at this alt. & in
this situation.

In young specimens
the flowers are much larger.
What I think is a young
specimen of this is the lobed leaf
of *R. Luteo-dorsii*. Very different.

What I think is a young
specimen of *Delphinium* in my
herb. is labeled *Delphinium* & *R.*
not numbered.

27

6

1747 *Laecanocarpus Surt. & Day.*
Aug. 5. wet rocks S. of
the Blue Lutes. ⁷⁵⁰⁰ 8000 ft.
alt. (Only a hundred
yards S. from us. 1915.)

1702 *Orthocarpus tenuifolius*, Benth.
July 10. In situations moist
in the spring but dry later
3500 - 4000. Probably not
rare.

Notes on Collection of 1899. - A. C. Cusick

2203 *Thermopsis montana*.
Common in moist or wet soil.

June 24 - July.

2331^a *Lupinus laxiflorus*, Dougl.
Mountain form. - Sweet slope of Wallava
m^{ts}, and common. Sept. 9th flowers
1896. *Lupinus colcaratus*, Kell. (fruit only)
Flowers set last year. - Hills near Snake
river, July.

2331. *Lupinus*.
Not rare on mountain stream banks. Banks
of West Eagle (Creek) Sept. 1st flowers + fruit

2348. *Trifolium plumosum*, Dougl.
Grand Round Valley near mouth of Loda
Canyon. July 1st.

2310 *Trifolium*
Purple. - Stream banks of Wallava m^{ts}
6000 feet alt. Aug 5.

1951^a *Astragalus inflexus*, Dougl. or near it.
(Collection of 1898) Hillsides in loose sand.

(1951^a) of Cotton-wood Cut near the
 Malheur - June 21st /98.

2267. *Astragalus*.

Alpine ridges of the Wallawa mtns
 near the lake 9000 feet alt. July 28.
 (A scrap of this was sent last year)

2303. *Astragalus*

North slopes of the higher Wallawa mtns
 The species is well marked by the
 obtusely triangular fruit - in cross section.
 This was sent last year - no. 2103 from
 the banks of Hurricane Creek. but not named.

2350 *Astragalus bentrophylla*,

this was called for me many years
 ago. but Sheldon calls it *A. tectorius* ^(Wats)
 Alpine summits of the Wallawa mtns July 28.

2095 *Oxytropis basichia*, Greene.

Ridges of the Wallawa mtns - Alpine or a little below
 Greenish white - July 27.

2320. *Oxytropis viscidula*.

Bars of Wallawa River. below the lake.

abundant. Aug 9. Mostly past bloom

2349. *Lathyrus*

Sierra, hillsides of Ludd Canyon. July 4th

2262. *Anemone multifida*.

Wallawa river where it is abundant

but I have not seen it elsewhere. July 28.

2304 *Anemone parviflora* Nutt!

This certainly must be. White flowers
tinged blue externally. Some white to blue-
inferous. Growing thickly but quite
limited in habitat. High Wallawa
river 4 or 5 miles S. W. of the lake. Aug 2.

2194 *Myosurus*.

Gravelly bars of Cathlamet Creek east of
Lummi. May 7th.

2259. *Ranunculus*.

White flowers. Flourishing in small streams
July 27.

2263. *Ranunculus Eschscholzi* (2) Gray.
Higher Wallawa Nitris - July 28.
2319. *Ranunculus*
margin of Aneroid Lake, Wallawa
Nitris. 7000 feet alt. Aug 5.
- 2327^a *Ranunculus*.
Head water of West Eagle Creek,
Wallawa Nitris - South slope. - Wet rocks.
7000 (?) feet alt. Sept. 1st = 2319.
This is perhaps not rare, but I have overlooked
it, heretofore.
- 2214 *Ranunculus Populago* Greene, f. *benignus* Jones.
^{South slope of Wallawa Nitris, type locality!}
4 c. - West Creek, margin of Snowdrift 6000^{ft}
feet alt. July 5. - Fruit same place Aug 3rd.
- That is, fruit on the same stream but when
the snow lay later. - This form seems to take
the place of typical *R. climacifolius* var.
obisnullus in these Wallawa-Nitris
As I don't now recall having seen the
latter in that range while this is common
on both slopes - wet soil.

2255. *Ranunculus alismifolius* v. *alsinoides*. Ry.
 Head of Anthony's Creek Blue Mtns July 21st.
 Sep 12 - Very abundant in the Blue Mtns.
2257. *Caltha lappaceola*.
 This has always been called *jaume*.
 - July 21. Sept. 12. - Blue Mtns, head of
 Anthony's Creek.
- 2204 *Delphinium*
 Stream-bank - near home - 3500 ft alt.
 June 24. - Aug.
2230. *Delphinium*
 Fine blue. Dry Mtn sides. Commonly in some
 shade. 7000 ft alt. Several seeds Mtns
 Idaho July 11. I searched very carefully
 for fruit of this in Sep. but could find
 nothing. The divergent follicles make
 it a. peculiar.
- 1890 *Delphinium* (Fruit only) under this no.
 I sent flowers of this last year. Some fruit.
 Tried to get fruit this season but got it little
 Soles of Pine Valley, July.

2339. *Selphium*

Wet situations near Lake head of
Anthony's Creek thru Nitus. Sep 12. ^{flowering}
(Sheep had trampled the young plants, so
they are crooked as if too weak to
stand erect.)

2296. *Selphium*

Nitus sides 7000(?) ^{feet} alt. Hallawa
Nitus near the lake July 31. - just coming
into bloom.

2191 *Ranunculus* ^{3500 feet alt.}

June 1st Fruit Sep 2. in the Nitus - at 5000 feet.

2312 *Troutvetzia grandis*.

Banks of Anceid lake Hallawa Nitus. Aug 5.
Commonly in wet soil, but these on dry bank.

2195 *Beckia*

Dry open soil. May 15 - Sep. Barely maturing
fruit in open situations.

2314

White - Banks of Anceid lake. Aug 5.

- 2293 *Lesquerella Bonplandii*, Watson.
 Steep, dry slopes, Wallawa Mtns, July 31.
2245. *Arabis*
 Cliffs \pm . head of Antchamps Crk. Blue
 Mtns. July 20. - Sep.
- 2264 *Arabis*. near the lake.
 North steep slopes; Wallawa Mtns, in
 sliding slopes. July 28. Rose.
- 1907a

Purple showy flowers. - 2^o - Dry N. slopes
 of Pine Crk near Snake River. May 31st
 Fruit & flowers: the latter quite out of season.
 I sent this Crk year but got no report.
 - only a few collected.

2292. *Leucocactus hastatus*, Watson.
 Stony but moist Mtn sides, among low shrubs.
 Wallawa Mtns near the Lake: rose. July 31.
 "Blue mountains" is probably an error as
 I don't remember having seen this in these
 Mtns - Just Wallawa - S. Slope called Eagle Crk
 Mtns - in 2 places only!

2301.

yellow fl. ^{highest} Cliffs of the Wallawa Mtns
S. W. of the Lake July 31.

2216 Viola

White-fl. - moist, eagle creek meadows
5000 feet alt. July 5. - Rare.

2233. Viola

In thick Mtn shrubs; especially on the road
side between Cuprum & the Peacock mine
Seven miles N. of Idaho. 6000(?) feet,
alt. July 11. - Sep. 14.

2223. Blechnum.

Bar of Snake River at Ballard's land-
ing. July 8.

2509. Arenaria Canadensis.

Low hills near Wallawa Lake Aug 4
Common.

2301^a

bluffs of Wallawa Mtn near the lake.
9000 feet. July 31.

2299.

High Wallawa Nitro near Wallawa
Lake. 8000[?] feet alt July 31

2213.

Wet slopes. Head waters of Big Creek, S.
Slope Wallawa Nitro. July 31. - 5000 feet alt

2296^a

Wallawa Nitro near the Lake 7000[?] feet alt.
July 31.

2305^a

Abundant on the highest ^{n. slopes of} ridges of
the Wallawa Nitro - north slope only. is
from the head of the Wallawa River northward

2329. *Spizella*

Wet cliffs. Head waters of Eagle Creek, ^{8000 feet}
Sep 1st. - This is abundant on the S. Slope
of the Wallawa Nitro but not seen on the
n. slope of the same. Shrub 2° more as Sep.

2300

Polentilla brevifolia [!]
Highest summits of the Wallawa Nitro near the
lake. July 31st

2246. *Potentilla*

Face of N. Cliffs highest Blue Nitro's head
of Anthony's Creek 8000(?) feet alt. July 20.
(Also very little was seen in the walling
Nitro's near the lake.)

2251 *Potentilla*

West cliffs head of Anthony's Creek Blue
Nitro's July 20.

2352 *Rosa*

Fruit only. Fruit with weak prickles.
On the ^{road side} ~~grass~~ between Bullard's landing and
~~Cuprum~~ = Cuprum; 5 miles from the former. Sept 15.
The plant in leaf & fruit resembles *R.*
nutkana except that it is larger in all
its parts. Flowering more abundantly
than is usual for that species, also, the
2-3° high & stout bushes being well cov-
ered with the large fruit. On a steep north
slope and not many bushes were seen this
I didn't leave the road to hunt.

2327. *Saxifraga*
Wet cliffs S slope of Wallaw Mtns. head
of St. Eagle Crk. 7000(?) feet alt. Sept 1.
2357. *Sedum rhodiola*,
(71) Wet rocks. Common in the highest
mtns - Head of Anthony & Crab Blm
Mtns. July 20.
2225. *Sedum divergens* ^{aricatum} Watson. ...
Bluff of Snake River - the type locality
July 10.
2235. *Megarrhiza*
Hillsides of Snake River near Ballard's
landing. July 12 - mature fruit.
2231. *Lonicera utahensis* Watson
Rare yellow & low bushy forest. 7000
mtns of Idaho. 7000 feet alt. July 11.
2317. *Aplopappus lanuginosus* Gray var. ?
A subalpine ridge, 8000? feet alt., between
Wallawa Lake and Camanche. 2 miles S. of
Aucoid Lake. Aug 5.

2344 *aplopappus*. *Carthamoides*. ~~Typical?~~
 Hillsides near Ballasdo Landing - Lolohe
 2000 ft. - Sep. 20.

2343^a *aplopappus* *nanus*, Lolohe (seen last year),
 but this is better known. A low shrubby
 shrub of cliffs (always). Rays & disk for white
 Sep 20.

2193 *Aplopappus* ~~conf. *fulvus* var.~~ *stenophyllus*

Not rare on stony ridges, - 3500 feet alt. June 8.

2295. *Townsendia* ^{purple} ~~conf. *fulva* var.~~ near the lake
 Pale blue alpine ridges of Wallawa Mtn 8000?
 feet alt. July 31. Biennial or rarely more enduring.
 Quite aculeate except 1 or 2 found growing
 among other things which seemed to draw the
 flowers up some. New and quite a surprise to me.

2294 *Townsendia* [?]

Deep violet. Biennial or rarely short lived perennial
 Wallawa Mtns. Alpine ridges 7-8000 feet alt. near
 Wallawa lake. July 31. Also new to me.

The deep purple flowers much resemble *Asclepias* but the
 which I first took it to be.

2335 Aster

Purph. Abundant in wet Eagle Creek meadows.
S. slope of Hallawa Mts 5000 feet alt. Sep 2.

2353. Aster

Purph. - Banks of sluggish stream lower part of
Pine Valley. Sep 19. The globular heads and
minute rays distinguish it - from anything
I have seen. It may be a Douglasii.

2297. Erigeron

Rayless - yellow. Alpine ridges Hallawa Mts
near the lake 8000 feet alt. July 31.

2346^a Erigeron

Bright blue. Pine Creek bottom near Snake river
Sept 16. - Probably not rare but quite out of season

2218. Erigeron

Blue. - Dry stony ridges near Sangre. 4000(?) feet
alt. July 6.

2270. Erigeron angustifolius, var.?

Bright yellow. Subalpine ridge Hallawa
Mts near the lake. 7200? feet alt. July 29.
A wide jump in altitude and almost distinct
enough to be called another else.

2265 *Antennaria*

North slope of Wallerwa nitis near the lake. Not
rare - July 28.

2308^a *Senecio* *Premartii*.

Typical & common in all alpine nitis

2308 *Senecio* *Premartii* var. *occidentalis*?

Alpine ridge, Wallerwa nitis, near the lake, 9000?
Feb alt. Aug 3. Stems & leaves dull purple.
Among loose rock. A small patch only and
all I have ever seen.

2345 *Senecio*.

High ridge of 7 Devils nitis Idaho. 7500
feet alt. - 2 miles S.E. of Peacock mine -
14 Sept.

2080

Collected last year but not sent Grand Ronde valley
in Grey & Ronde Valley.
Introduced? & common, but not generally distributed.
Trail, Road side Aug.

2250. *Vaccinium*

High (Blue) nitis bog. - Head of Anchovy Creek.
July 20.

- 2249 *Kalmia glauca*.
Margin of bogs &c. Head of Anchovy's Creek.
July 20.
2313. *Ledum glandulosum*.
Bogs of the Wallawa mts. - on the trail between
Wallawa lake & Cornucopia - 6-7000 feet alt.
Aug 5.
- ~~2226 *Heterocodon raciflorum*.~~
~~North bank of Pine Creek near Snake River.~~
2269.
Subalpine Wallawa mts. ^{near the lake.} 7000? feet alt July 29.
- 2238 *Heterocodon raciflorum*.
North bank, near North Pine Snake River region.
July 14.
2316. *Dodecatheon*.
Subalpine Prairie of Wallawa mts on the Wallawa
Cornucopia trail 7000 feet alt. Aug 5, fl.
Eagle Creek meadows. S. Slope of Wallawa mts.
5000? feet alt. Sep 2 fl. with. Parts in 4's. - The
only species found in ^{high} Wallawa mts except *D.*
pauciflorum, given - sent many years ago, but called *D.*
Jeffreyi.

2253. *Sodecathion* as an aif com, Green. (typical!)
 Wet rocks of Higher Blue Mtns. - Head of
 Archway's Creek. 8000 feet alt. July 21, Sep. 12.
- 2252 *Sodecathion jeffreyi*.
 Margins of ponds etc. Head of Archway's Creek.
 Blue Mtns. 6-7000 feet alt. July 21, Sept. 12.
- 2190 *Sodecathion*
 ... Strong swales (wet in the spring but dry later).
 3500 feet alt. abundant. May - June
 This was cut many years ago. W. H. Gray
 calling it *S. jeffreyi* var.
2226. *Fraxina albicaulis*.
 Low mountains near Cuprum. Idaho. July 10.
2336. *Gentiana simplex*, Gray
 Wet, very wet! Eagle Creek meadows. S. slope of
 Wallawa Mtns. 5000? feet alt. Sep. 2.
- 2331^a ~~*Lupinus latifolius*, ?~~
 Trout Creek brook feet alt. Sep. 1.
2240.
 Paddy's Creek S. Wallawa Mtns. - on the Greenhorn Comm. road
 Rather common in this region but not seen elsewhere.
 July 1891.

2346. *Phacelia?*

A stout coarse perennial of the seven Devils mtns
 Leabo-7000 feet alt. on steep ^{south} slopes among
 granite boulders. ^{beside the road. by mistake} Fruit only. Sep 15. This may
 be *P. peruviana*. ^{I do not think so from the description} of the Sierra Nevada mtns of Cal.
 Prof W. E. Jones of Salt Lake City was here along
 the road when this grows a short time a head
 of me. must have seen it & if he thinks it
 new, no doubt, will name it.

2323. *Echinops pumilus*

Biennial. - rocky bottom of Wallawa River below the
 lake. Aug 9. Rare.

2268.

On balpau ridges & flats of the Wallawa mtns near
 Lake Lake 7000? feet alt. July 29. - A most beautiful
 plant with the first of blue flowers.

2347.

(Bodden)

Parasitic on Potatoes & Mandelina in & near a
 garden in La Grande Oct. 6.

2341

Parasitic on Alfalfa and a great pest. Lower Powder
 River in alfalfa fields. Sep 20. ^{Loose plant} A.

2227 *Touella floribunda*

Roadside near Aupuan Isaho, 4000 feet alt.

July 10.

2328 *Pentstemon confertus* var.

Eagle Creek & Trout Creek S. slope of Wallawa
 mtns - Dry then. Moist situations 6-7000 feet
 alt. Sept 5th. This is abundant in all our
 subalpine or alpine mtns, ^{7-8000 ft.} & last year from
 Stein's mtns. If it had yellow flowers
 it would be good enough *P. attenuatus*. Dougl.
 Having the same range in altitude and much
 the same ^{General} appearance as that species.

2220 *Pentstemon triphyllus*, Dougl.

always on cliffsides, near Snake river.

Purple - July 7.

2217 *Pentstemon glaber*, var.

Purple. - Subalpine dry ridges. 4000 feet
 alt. July 5. Common.

2206 *minutus luteus*.

Common in wet situations. June 22.

2236. *Mimulus*

Pink flowers. Moist bank near N. Pine
Creek 3000? feet alt. July 13.

2237. *Mimulus*.

Yellow flowers. Moist bank near West
Pine Creek. July 13.

2229. *Synthyris reniformis*?

Deep violet. 7 beils nitro 7500 feet alt. July 11.
flowers - Wallawa nitro near the lake 7000 feet
alt. July 28 - fruit.

2094 *Castilleja Lemmonii*? (of last year)

Young specimens. From the same place - alpine
ridges of the Wallawa nitro near the lake
9000 feet alt. July 28.

2322 *Castilleja*.

Rocks of Wallawa River - 6000? feet alt. Aug 7.
Very little sun.

2354. *Castilleja*.

Pale. - Wallawa nitro near the lake - 7000 feet
alt. Aug 2.

2219. *Eriogonum*~~Pale~~

Bright yellow. Steep mountain sides of Riddle's
Creek on S. slope of Wallawa Mts 4000? feet
alt. Common at lower altitudes, but never
before seen so high in the mountains.

2343.

Dry stony hill sides & bottoms near Snake River, in the
Canyon near Ballard's Landing; not seen elsewhere
Sept 22.

2355 *Coraloriza*

Common on low mts, in dry shade. Wallawa
Mts S. slope July 14.

2337. *Spisanthes Romanzoffiana*.

Wet Eagle Creek meadows. 6000 feet alt. - not
rare. - Sep 2.

2232^a *Simulacina ampuricaulis*.

7 Devils Mts of Idaho. July 11. - And not rare.

2288.

Moist shade - flowers faint red. Mts 4000
feet alt. Base of Blue Mts to Snake river
June 30. - Sep.

2212 *Allium*

white flowers rarely purplish tinged
Wallawa nitens, ^{south slope} head of Big Creek 4000 feet
 (and ~~above~~ higher) July 4th; also ^{seen} near the
 head of the Wallawa river Aug 8 8000 feet
 alt. I have sent this before viz. nos 950, 942
 & 954. but have never rec'd any name. A good
 species, certainly.

2356 *Allium validum*, Clifton.

Blue nitens near head of Anthony's Creek. Purple-
 Sept 13. (Also abundant on S. slope of the
 Wallawa nitens - but not seen on the north slope?)

2232 *Trillium ovatum*,

White flowers. - Thick damp forests of the
 7 Devils nitens Idaho. 4-6000 feet alt.
 July 11, mostly quite past bloom. (This is within
 a few miles of Snake river but strange to
 say, I do not think it occurs on the W.
 side in E. Oregon.)

2305 *Carex filifolia*, Alpine form.

Highish summits of the Hallawa mts
near the lake - 9000 feet. On a bare rocky
ridge ^{Aug 2}. This I suppose is not specifically
different from ^{the} common *C. filifolia* which
is one of the most abundant plants at
about 3500 feet.

2291. *Carex*

Boggy springs + c. Hallawa near the lake
July 31.

2197. *Carex filifolia*.

The common form. 3800 feet alt. Dry soil
may 15. This is most abundant on
the best grain lands especially about
the base of the Blue mts, with a very
tough sod.

2202. *Carex Douglasii*.

Common in moist situations. June 24.

2342.

margin of irrigating ditch lower Powder
(Powder) River. Sep. 20.

23.

2248.

Wet cliffs of highest Blue mtns. head
of Anthony's creek 8000 feet. alt July 20

2164, 2164^a *Garryphya ramissimum* ~~that~~ one of
these was called for me last year
but I find them mixed + I don't know
which is the true species.

2347^a

Roadside near La Granda where I have seen
it for several years - doubtless introduced.

2354. *Juniperus occidentalis*, Hook.

This is Prof Sargent's determination.

Small spreading tree. From base of
Mallorn mtns where it is very rare
southward to Steens mtns + westward
to Carcader + usually very abundant.

Report 95 /
nos. 29 April 99.

Report 156
nos. 24 April 99

✓⁺
2123 *Mollugo verticillata*, L.

✓⁺
1952 *Clematis ligusticifolia*, Nutt. ♂
Staminate fl. running over
rocks on Burnt River June
15.

✓⁺
2029^a *Clematis ligusticifolia*, Nutt. ♀
Rectilob fl. - Gulches of
Santo Rosa Vitus Nevada,
July 11.

✓⁺
2082^a *Clematis ligusticifolia*, Nutt. fruit.
Fruit. - Banks of the Wallawa
River. Aug 19.

✓⁺
2086^a *Clematis verticillaris* ^{DC.} var. ~~g~~
^{Columbian} ^{Gray}
Vitus of the Wallawa, Aug 22
But quite out of season. It is
abundant in these vitis
but commonly blooms in
June. You should have
good specimens from me
sent many years ago. One fl.

$$\begin{array}{r}
 50 \\
 23 \\
 22 \\
 \hline
 95 \\
 9 \swarrow \\
 156 \\
 25 \\
 \hline
 11
 \end{array}$$

✓ 1873 *Aquilegia quinquefolia*
 (slender form)
~~from Old Java, Robinson~~

Wallawa Mtns S. slope 4000
 feet alt. Common in those
 mountains, - but not seen in
 the Blue Mtns proper. Pure
 white. - There is a purple
 variety. Have not seen it
 before from these (Wallawa)
 Mtns. - May 23 - June 13 -

✓ 2126^a = 1973. *Aquilegia quinquefolia* L.
 (slender form)
 From the Mtns of W. Idaho
 near Ballard's Landing on
 Snake River. Sep 28. -

✓ 2036^a *Thalictrum Fendleri*, Engelm.
 Wild horse Creek in Steins
 Mtns. at about 5000 feet alt.
 Fruit only, 15th July.

✓ 2180 *Thalictrum occidentale* Gray
 This has always been called
 for me, June 1 - 27. Common.

✓~~4~~ 2114^b *Ranunculus Eschscholtzii*, Hook.
Below the highest & shallow
nitro, Aug 28.

✓~~4~~ 2206 *Ranunculus Sukasdorffii*, Gray
just below the snow drifts
head of Wild-horse Creek
Stein's Nitro. - about 7000
feet elevation. July 5.

The finest *Ranunculus* I
ever saw. Growing in
great abundance in
clumps of often a dozen
or so flowers.

✓~~4~~ 1828 *Ranunculus* ~~*laetiflorus*~~ ^{*juiperinus*, Jones}
Petals white. Sepals
purple.

I got roots of this
last year & this one only
flowered in my garden
last spring - very early.
Roots from the Southern
Blue Nitro, Head of
Olio Creek, 15. July.
Quick - past fruiting.

✓ 2005-6 *altha leptosepala*, DC.
 I suppose you call this
 though it seems to me
 it is distinct.
 Head of Wild-horse Creek
 Steins Nitro. just below
 the snow. Most beautiful
 - white; outside of sepals
 purple - and in the
 greatest profusion.
 July 5. (Sent Dr Gray
 the same from the Wallowa
 Nitro many years ago,
 in fruit.

✓ 2181. *Delphinium simplex*, Dougl.
 Common on stream banks
 June 17.

✓ 1890 *Delphinium* sp.
 In moist situations. - River
 valley. 25 May -
 violet sepals, white
 petals.

✓ 1909 *Delphinium* *distichum*, Gray
~~*simplex*, Dougl.~~

(1909) Abundant⁵ in steep gulches
and moist situations gener-
ally on Pine Creek blooming
in July.

All three of the preceding
have been called, for me
D. simplex, Dougl.

1982 *Delphinium simplex*, Dougl.?
moist situations in Stein's
Vitis. where it is abund-
ant, June 29.

2024 *Delphinium scapulosum* var.
stoechadum, Gray
Santa Rosa Vitis Nevada
(also in the Stein's Vitis)

July 11. *pauciflorum*, Nutt.
1866. *Delphinium decorum*, Torr.
~~var. nevadense, or near it~~

This has been called for
me by Dr. Watson.

dry hillsides, May 10.

2112^a *Delphinium pauciflorum*, Nutt.
rad. depauperatum, Gray
Wet situations in the highest
Vitis. Have sent before but got
no answer. Aug 28.

✓ 2089 *Asclea ^{spicata} var. arguta*
 (Fruit only) Red or white
 among broken rocks on
 N. side. Chulavie
 N. side Aug 22.

✓ 2000 *Asclea ^{spicata var. arguta,}*
 = 2089? *Tour.*
 From Steins N. side.

July 4

✓ 1883 *Draba Wonglasi*; Gray
 Steep stony soils. Rather
 rare here. May 23; fruit

✓ 2008 *Draba Curicui*, Robinson, n.sp.
 Cliffs of the highest
 Steins N. side. - July 5

✓ 1853 *Arabis Holboellii*, Gray
 Common. May 2 - June 9?

✓ 1853 *Arabis suffruticosa*,
 from Steins N. side. Watson

✓⁺ 1938 *Panay mengieii*, Greene.
 Common in dry situations.
 April 23, - June 12 -
 In this region the fruit
 lies prostrate but, in
 Steens Mtn's it stands
 upright.

✓ 2028 *Lepidium montanum*, Nutt.
 A white-flowered annual
 In Oregon Crest valley - near
 the Nevada line - growing
 in stony alkali soil

✓ July 9
 1955 - *Thelypodium laciniatum*, Endl.
 White fl.; 3-6"; biennial.
 Sagebrush valleys of
 Cottonwood near the alluvial
 River. June 21

- ✓ 2022 *Stanleya viridiflora*, Nutt.
 Greenish yellow ^{flowers} in
 sage brush in Oregon Creek
 Valley, July 9.
- ✓ 1931 *Stanleya viridiflora*, Nutt. (fls purplish
 tinged)
 Steep hill sides of Burnt
 River, June 15.
- ✓ 1964 *Sisymbrium linifolium*, Nutt.
 Yellow perennials. - Among
 rocks. Steins vltus, June 25
- ✓ 1977 *Eysimum cheiranthoides*, L.
 Yellow fl. Biennials: -
 Stream-banks base of
 Steins vltus June 29.
- ✓ 2002 *Strep. taurinus* ~~Stavely~~ ^{cordatus, Nutt.} (P)
 High redg & sides of
 Steins vltus especially
 on cliffs &c, July 4
 Petals violet sepals
 bright yellow but fading
 purple. Biennials or short
 leaved perennials. (often!)

✓ 2026, *Carlanthus crassicaulis*, Watson
~~Sta. ~~leucanthus~~?~~

Sepals & petals violet, bi-
 ennial or occasionally
 more decennial. Commonly
 much branched from the root.
 Santa Rosa Mtns Nevada
 In among low shrubs. 11th
 July; just coming into
 bloom.

As to flowers this
 looks much like the
 preceding, but I ~~should~~
 think they are distinct.

✓ 1884, *Thelypodium flexuosum* ^{*Rabinsia*}
 Alkali hills. not common

May 23.

✓ 2032, *Nasturtium sinuatum*, Nutt.

Dry Creek bed, - Oregon Creek
 July 13.

✓ 2054 *Lesquerella occidentalis*, Watson
 from seeds of near Canyon
 City - Grant Co., 21st July.
 Yellow flowers.

2036 *Lesquerella occidentalis*, Watson
 Sandy mtn' side, Steins
 Vitos - at ~~middle~~^{middle}
 altitudes - near Wild
 Horse Creek July 15.

2025 *Physaria Newberryi*, Gray
 Santa Rosa mtns.

On or about cliffs,
 mtns. July 11. Fruit
 dull purple, usually.

1895 *Physaria Oregona*, Watson
 Hillsides of Pine Creek
 near Snake River - The type
 locality - 25 May - Fruit

2010 *Arenaria verna*, L., var. *hirta*, Watson
 Highest Steins mountains.
 July 5.

2115 *Spergularia rubra*, J. & C. Presl.
 Road sides in the Wallawa
 Introduced, but rare here.

2084. *Silene Spaldingii*. ^{Spalding}
 Hills near Hallows
 Lake, Aug 22.

2073 *Silene* *Oregana*, Watson
 Mountain valleys. 4000
 feet, Aug 10. — not rare.

2017. *Chionella stenosperma*, Coville
 Bright yellow. In the shel-
 ter of dense wood. Al-
 mond valley and Oregon
 Creek Valleys. July 7-17

1863. *Viola sumentosa*,
^{var. orbiculata, Gray}
bonifernus Woods 4000 feet
 May 10 - July 29. (Evergreen)

1849 *Viola Nuttallii*, Pursh
 this has always been called
 for me, but it seems
 to be distinct from the
 form sent last year & so
 called. Dry soil.

1849) April 29 - June 7.

1887 *Viola* = 1849 *Nuttallii*, Pursh
From Steins vitz's, where
snow lies late, July 2
(no flowers)

1876^a *Viola Nuttall* Pursh
of last year. But this
is from steep vitz side
- 4000 feet alt. - in the
shelter of low shrubs.

May 20.

1886^e *Viola Nuttallii*, Pursh
(causes cent. down)
Top of Steins vitz's.
June 30. No flower seen.

1864 *Viola globosa*, Nutt.
Mountain bog etc. 4000
feet. July 10. - May 10

July 29,
1876 *Viola* ~~*aurica*~~ *præmorsa*, Dougl. 7 ~~*Nuttallii*~~
~~*Kell. var. Nuttallii*~~
On or about cliffs. Commonly
4000 feet. May 21. (Common
Southward - Steins vitz etc.)

✓~~1901~~ ✓ *Viola canina*, var. *adunca*, Gray
 also under this no. ^(*forma laevigata*, Gray) *V. Howellii*, Gray
 Blue, - moist shade River

✓~~2085~~ ✓ Creek. - 30. May.
 2085 *Viola* sp.

Banks of the Wallawa River
 in the mts 23 Aug.

2107 *Claytonia* ~~no specimen~~
 Along subalpine streams
 & Wallawa mts Aug 26

✓~~1875~~ ✓ *Claytonia lanceolata*, Ph.
 Subalpine dry soil.

✓~~2148~~ ✓ May 20.

2148 *Montia parviflora*, Howell
Claytonia ^{var. *depressa*, Robinson} *perfoliata*, Gray
 this has been called for
 me, but must be wrong.
 Shaded gulches. etc.

✓~~2161~~ ✓ May 11.

2161 *Hypericum formosum*, HBK.

✓ ²⁰⁸⁻³ *Sidalcea* ^{argana} *argana*, Gray
Sidalcea. Purple:-
 stems hollow, thin wall-
 ed, Banks of Silvio's
 River in Bear Valley.
 also sent last year, - but
 got no report, - from
~~Buck Creek & Camp Creek~~
 (Aug 10.)

"*S. argana*" you will find
 notes with specimen.

✓ ²¹⁵⁴ *Geranium incisum* ^{Gray}
 Rich dry soil, July 29.

✓ ²⁰⁶³ *Lupinus ornatus*, Dougl.
 Pale purple - Mtns, 4000
 feet: Commonly in pas-
 ture shade. July 29

For sep.

✓ ²⁰⁴⁸ *Lupinus leucophyllus*, Dougl.
 Pale blue, tinged brown

In the Blue mtns head
of Trout Creek, Harney?
Co. July 19 - outer min-
am, Wallawa mtns.

(fruit) Aug 9.

2050 *Lupinus caespitosus*, Nutt.
dark purple. A biennial
seen only in Silvies Valley
and Bear Valley - both on
Silvies River, - Harney? Co.

July 20. polyphyllus, Lindl.
1926 *Lupinus leucophyllus*,
this has been called for
me. Pale blue. - Dry
mtn sides, 4000 feet.

June 13 - Fr. Aug 9.
2040 *Lupinus Lyallii* Gray.
deep blue. High summit
of Steins mtns, - close to
snow. July 15.

Growing in large open
- ing clumps.

- 896 Lupinus calcaratus, Kellogg
 Dr. Watson called it this
 many years ago. Spec-
 imens bright yellow;
 more commonly dull
 purple, often white: all
 fading to a dull pur-
 ple. Very abundant
 from Eagle Valley east-
 ward to or near Snake
 river. Dry soil, with a
 range of at least 1000
 feet in altitude. 26. May.
- 2132 Lupinus calcaratus, Kellogg
 = 1896. Dull purple with
 yellowish tinge. Santa
 Rosa Nitro Nevada
 July 11
- 2020 Lupinus pusillus, Pursh
 Rache succulent. Sands of
 Almond Desert - July 7.

2174 *Lupinus* ^{ornatus, Dougl.} ~~latiflorus, Dougl.~~
Very common form.

June 14 - July 18.
2169 *Lupinus latiflorus*, Dougl.
this has always been called
but it seems to me dis-
tinct enough to have
a varietal name. With
the preceding:
June 21 - July 28.

2066 *Trifolium cymosum*, Lindl.
Common. - 3-4000 feet
alt. 29. July.

2038 *Trifolium eriocephalum*, Nutt.
White - often tinged
purpl. Head of Wild-
horse Creek. Steins River

July 15.
2075 *Trifolium eriocephalum*, Nutt.
Hall's River Aug 13

- 1859 *Trifolium megaceph-* (alumn. ~~West.~~
 May 5.
 2158. *Horachia Rurhiana*, ^{"Bent."}
 July 28. Common.
 1952 *Petalostemon ornatus*, Gray
 Malheur region. - dry
 hillsides June 21.
 1942 *Astrogalus lentiginosus*
 White. Malheur & South, ^{var. "freemounti" Nelson}
 in dry soil 20-22. June.
 1850 *Astrogalus salinarius*, Jones
 White fl. tinged purple.
 Pods mottled. April 29
 - June 7. A common form
 on stony hills.
 1978. *Astrogalus diphysus*, Gray
 Fruit. *Steins nitus*. - where
 it is common, but seldom
 forms fruit. July 29.

- ✓ 1910 *Astragalus* sp.
Fruit only, Hillsides
of Pine Creek May 31.
- ✓ 1878 *Astragalus* ^{*libbeyi*, var.} ~~*libbeyi*~~ ^{*falciformis*, Jones}
Flowers white. Common in
strongly soil May 20 -
June 13
- ✓ 1877 *Astragalus leucicarpus*, Gray.
Seen only on hillsides of Pow-
der River & Burnt River.
May 20. - June 13.
- ✓ 2095 *Astragalus* sp.
From the highest summits
of the Wallowa mts.
Some remains of fruit an
rich long and about a
line broad were seen. It
is quite new to me.
- ✓ 2103 *Astragalus alpinus*, L.
^{reported as *Astragalus* sp.}
this has been called, but I
think it goes by a different
name now.

(2103)

19

Baro of Hurricane Creek

Wallowa mtns. Aug 25

1868. *Astrogalus roentii*, Gray
Fl. pearl white. Stony hills
3-4000 fut. alt. May 12
— June 10.

1951^a *Astrogalus Purshii*, Dougl.
Fruit only. Cottonwood
Creek (near the Malheur)
June 21.

1989 *Astrogalus Mortonii*, Nutt.
White. Sandy shore of
Mans Lake (Barren Valley)
July 1st. (A common species
but more dwarf & quite
decumbent, which the
common form is not.)

1993 *Lathyrus palustris*, L.
In deep shade, bank of
Sivine Creek in Steins
Mtns. July 2.

19^a

J. S. White

1992^a *Lathyrus coriarius*, Torr. & Gray
~~White~~
 Purple - Stream-banks
 - but not wet soil - in the
 higher Steep's nitro.
 July 1st

1918 *Lathyrus argemone*, J. S. White
 Purple. - In moist mead-
 ow. Pine Valley, June 3.

1882 *Lathyrus usickii*, Wats.
 White. Dry, shaded nitro
 sides. 4000 feet alt.
 May 21. This is usually
 found with *P. nevadensis*
 and *Scutellaria* seems to
 differ from it except
 in the narrower leaves

1881 *Lathyrus nevadensis*, Wats.
 White. Dry mts sides
 and ridges. 4000 feet
 alt. May 21.

1902 *Vicia Americana*, Muhl.
 Purple. Hillsides of Pine
 Creek - near Snake River 30 May.

- 2104 *Hedysarum Mockewzi*; ^{Richards.}
 Rose purple. Very abundant on the n. slope of the wallowa mts.
 - Not a specimen seen out with these mts.

Aug 25. Mostly past bloom

- 2146 *Rumex Emarginata*, Walp.
 A shrub or small round-topped tree. Fruit bright red; bitter and astringent

June 17. - Aug 9,

- 2147 *Rumex demissa*, ^{Walp.} ~~Trist.~~
 Shrub or small, straight tree. 20 or 30 feet high & 5'-6' in diameter. Fruit black at maturity; barely edible. June 21. Aug 17.

Often fruiting when only a foot or so high

(There is no question about the names of these, but I want to know what you call them now.)

- ✓ 1968. *Spiraea discolor* P. H. G.
 n. var. ~~glabrescens, Gray~~
~~glabrescens, Gray~~
 A very diffuse shrub.
 2-4'. Abundant about
 cliffs &c. in the
 Stein's rutus. (not seen
 n. of there) June 26.
- ✓ 2179 *Geranium triflorum*, P. H.
 A common plant at about
 4000 feet alt. - May 24 June 13
- ✓ 2189. *Potentilla glutinosa*, Nutt.
~~*Geranium macrophyllum*, H. & A.~~
 Common. July 12.
- ✓ 2037^a *Potentilla Breweri* Nelson
 var. *repens*, Nelson
 Stream bank; head of
 Wild-horse Creek. Stein's ridge
 July 13.
- ✓ 2046. *Potentilla Newberryi*, Gray
 var. *areolaris*, Rydberg
 Petals white. 19 July.
 Honey Valley, in moist
 situation. (Eaten by cattle.)

- ✓ 1899 ⁺ *Potentilla chontoides*, Rydberg.
 Yellow. Base of cliffs
 Rnie Creek - May 26.
- ✓ 1975 ⁺ *Horkelia parviflora*, Nutt.
 Summit of Stein's Nitro, where
 snow drifts deep. June 28.
- ✓ 1967. ⁺ *Ivesia Baileyi*, Watson
 Cliffsides. Stein's Nitro
 June 27.
- ✓ 2143 ⁺ *Crataegus Douglasii*, Lindl.
 Shrub or small tree. Stream-
 banks or gulches. Fl. white.
 Fruit black. Barely edible
 (Eaten by Beavers, Coyotes &
 Sage-hens) May 31. Aug.
- ✓ 1858 ⁺ *Amelanchier Gussickii* ^{Small} _{2. v. p.}
 Scarlet fruit, turning black
 in drying. Dry stony
 hillsides, Tall - 6' - 10' with
 slender flexible branchlets,
 May 5. - Fr. June -

- ✓ 1871 *Amelanchier alnifolia* Nutt.
 Fruit black. May 12.
 Very common - a low
 shrub. 6^o-8^o much branched
 with rigid crooked branches
 branchlets. Stony gulches
 often common on
 hillsides, low nitus (4000
 feet alt.). -

- ✓ 1879 *Peraphyllum ramosissimum* ^{Rt.} ~~Dr.~~
 Fl. white-tinged purple. Fr.
 yellowish green when mature
 Extremely bitter and nauseous
 - not eaten by any thing -
 Shrub 3^o-4^o in large clumps
 the tips of branches often
 when bent to the ground tak-
 - ing root. May 21. - Aug.
 (Dry stony hills)

- ✓ 1870 *Aeschera cylindrica*, Dougl.
^{var. alpina, Watson}
 Cliff sides. Sterns Nitus
 June 27.

✓ 2170 *Henckera cylindrica* Dougl.
var. *ovalifolia*, Wherry.

Common on cliffs or
broken rocks. June 15

✓ 1993 *Henckera rubra*, Torr.
cliffs of Stein's Butte
July 2.

✓ 1908, Bolander Oregon Nat.
Shipping rock S. Pine Creek
near Snake River where
it is abundant, 31, May

✓ 2147. *Ribes oxycanthoides*, L.

"Goose-berry". Common on stream
banks. - dry soil - Fruit black
and shining. May 2 - July 15.

✓ 2141. *Ribes cereum*, Dougl.
white, tinged purple; fruit
orange red. Hillsides. May 2
June 28.

✓ 1731. *Ribes lacustre*, Poir.
dull red. Fr. black or red.
A shrub of the highest

(1731) ⁺ Mountains. Fl. (in 1899) in Blue
nitus. July 20. Fr ('98) Wall
nitus. Aug 23.

✓ ⁺ 1994 *Sedum debile* { Watson.
bluffs of Steins nitus. 2 July.
Fl. yellow.

✓ ⁺ 2099. *Epilobium latifolium*, L.
Rose purple. N. Slope of Wall
nitus. 7-8000 feet alt. Aug 23.

✓ ⁺ 2116. *Epilobium paniculatum*, Nutt.
Very common annual. in dry
soil. Sep. 3.

✓ ⁺ 2120. *Epilobium paniculatum*, Nutt.
Purple. - Hillsides of Pine Creek
Sep. 24.

✓ ⁺ 2027. *Epilobium alpinum* L.
In wet soil ^(*E. lactiflorum* Hauss.) Santa Rosa
Nitus, nev. July 11.

✓ ⁺ 1998. *Epilobium* ~~*pusillum*~~ ^{*glaberrimum*, Gray} var. *latifolium* ^{Boott}
Steins nitus. moist situations
5-6000 feet alt. July 4.

- ✓ 2164 *Gayophytum racemosissimum*
Common. — July 29, J.B.G.
- ✓ 1940 *Oenothera alyssoides* Hook. & Ar.
White. Common in the desert region. June 20.
- ✓ 1944. *Oenothera scapoidea*, Torr. & Gray
Bright yellow. In the desert region June 20.
- ✓ 2178. *Oenothera heterantha*, Nutt.
A common perennial in moist situations. Yellow fl. 3500
— 4000 feet alt. May 30.
- ✓ 2184 *Symphoricarpos rotundifolius*, Gray
June 21. Aug 9, 17.
- ✓ 1897. *Galium multiflorum*, Kellogg
var. *matsonii*, Gray
Hillsides of Pine Creek
May, 26.
- ✓ 2131 *Valeriana sylvatica*, Banks
Head of Wild-horse creek
Stein's notes 6-7000(?) feet
July 15.

- ✓ 1999. *Valerianella maculosa*, Gay
Steins vitiis; probably
 common. July 2.
- ✓ 2168 *Galium boreale*, L.
 this has been called, but
 doesn't seem to answer the de-
 scription exactly.
 June 27. Aug 5.
- ✓ 2020 *Krynitzkia micrantha*, Gay
 Sands of Alford desert.
 July 7. Quite past bloom
 and fruit.
- ✓ 2087. *Eupatorium occidentale* ^{Abok.}
vitiis 5000 feet alt
 Aug. 22.
- ✓ 2101 *Bickellia grandiflora*, Nutt.
 Lime stone cliffs of the
 Mullowa vitiis - 5000? feet
 alt. Roots somewhat suc-
 culent. Aug 25.

- ✓ 2121 *Bicknellia microphylla*, Gray
 Stony hillsides of Pine
 Creek near Snake River.
 A woody based perennial
 Sep 24.
- ✓ 2185 *Grindelia nana*, Nutt.
 Hillsides near Prairie
 City Grant Co. July 21.
- ✓ 2058. *Grindelia nana*, Nutt.
 In red clay soil. 3000
 — 3500 feet alt. July 27.
 (Union Co.)
- ✓ 2074. *Chrysopsis villosa*, Nutt.
 var. *hispida*, Gray
 On rocks of limestone (river)
 Wallowa River. Aug 9.
- ✓ 2186 *Chrysopsis villosa*, Nutt.
 var. *hispida*, Gray
 Limestone cliffs of Prairie
 Creek, Wallowa River
 Aug 28.

- ✓ 2125 *Aplopappus nanus*, Eaton
Shrub a foot high and
fler as broad. Rays &
disk pure white. Cliffs
of Snake River near
Ballard's Landing. Sep. 28
(mostly past bloom.)
- ✓ 2093 *Aplopappus Lyallii*, Gray
Cliffs of the highest crallone
mtns. Aug 22.
- ✓ 2077. *Aplopappus conthamoides*,
var. *buickii*; Gray.
Subalpine ridges of the
Ballona Mtns. (and widely
distributed) Aug 13.
- ✓ 1966. *Aplopappus acaulis*, Gray
Stein's mtns June 28.
- ✓ 1962 *Aplopappus Floydii*, Gray,
Top of Stein's mtns - not the
highest - June 23.

- ✓ 1943. *Aplopappus laucrolatus* J. & G.
^{var. *truncicaulis* Gray.}
 In wet alkaline soil
 Malheur June 20, ~~about valley~~
~~(the canyon) July 8.~~
- ✓ 1943^a *Aplopappus laucrolatus* J. & G.
^{var. *truncicaulis* Gray.}
 = 1943 only larger & growing
 in near it in the
 Malheur. June 20.
- ✓ 2056 *Aplopappus hirtus* Gray.
 Moist open gulches: Burnt
 River in the Blue Mts.
 July 23.
- ✓ 2015. *Aplopappus laucrolatus* J. & G.
^{var. *truncicaulis* Gray.}
 Moist, subalkaline meadows.
 about valley. July 7.
- ✓ 2135 *Solidago* ~~*serotina* Gilg~~
^(det. G. M. F.)
 Common in rich bottom
 Aug 8.
- ✓ 1935. *Townsendia Watsoni* Gray
 Biennial! Malheur region.
 June 17.

- ✓^x 2126. *Aster conspicuus*, Lindl.
Mts of Idaho near But-
lard's Landing, common
every where in Shoshone
mountains. Sep 28.
- ✓^x 2127 *Aster Hallii*, Gray
Bar of Snake River, But-
lard's Landing. Sep 27.
- ✓^x 2083 *Aster conspicuus*, Lindl.
apparently approaching
A. radicans. Wallawa
Mts on the main,
Aug 12.
- ✓^x 2112 *Aster membranaceus*, Greene
Violet. Stream banks
of the highest Wallawa
Mts. Aug 28.
- ✓^x 2119 *Aster frondosus*, T. & G.
Grand Rond Valley, Sep 4
- ✓^x 2178 *Aster multiflorus*, Ait.
Grand Rond Valley. Sep 3.

2071. *Aster foliaceus*, Lindl.
 var. *Eastoni*, Gray.
 Banks of the M. main River
 Aug 4
- 2057 *Aster*, ~~shastensis~~ *shastensis*, Gray
 Dry prairies of Bear Valley
 , Southern Blue Mtns July 20
 This, I suppose, = what you
 thought last year might
 be *A. Shastensis*, Gray. It
 comes from the same region
 and I think is a good
 species
2099. *Aster* ~~caneosus~~ *shastensis*, Gray
 Banks of Hurricane Creek
 Mallowa Mtns Aug 25.
- 2105 *Aster Cusickii*, Gray
 Purple. Thick shade
 Mallowa Mtns. Aug 26.
- 2088 *Aster fremonti*, Gray
 Mallowa Mtn sides, Aug 23.

applanactis, Gray.

✓ 1941 ^x *Erigeron Concinnus* F. & G. var.
 Malheur. June 20

✓ 2787 ^x *Erigeron chrysopsis*. Gray.
 Pale yellow (not golden yellow)
 Hillsides &c. (Nunn Co.) ^{Gray}

May 12.

✓ 1985 ^x *Erigeron* ~~*Bloomeri*?~~ ^{*Austiniæ*, Greene} Gray.
 Heads turning brown as
 they approach maturity.
 Summit ridges of Steier's
 mtns June 30.

✓ 1892 ^x *Antennaria argentea*, Benth.
 Gulches &c., Pine creek near
 Snake River. May 25

✓ 1867 ^x *Antennaria luguloides*, ^{Don. & Gray}
 moist hillsides & gulches

May 12.

✓ 1925 ^x *Antennaria* ~~*diversa*~~ ^{*rosea*, Greene}
~~*rosea*~~

Common, June 10.

- ✓ 1924 *Antennaria* ^{*umbrellata*} ~~*diversa*~~ ^{*Bedd.*}
 Hills & low mts. especially north slopes.
 June 10.
- ✓ 1848 *Antennaria* *dimorpha* ^{*Muhl.*}
 Stony hills. April 29.
- ✓ 1856 *Antennaria* *stenophylla*, Gray
 Stony hillsides. May 3.
- ✓ 2068. *Gnaphalium* *palustre*, Nutt.
 moist situations. Aug 3.
- ✓ 1922 *Simoesia* *Howellii*, Gray.
 Steep mtn sides. Steep
 mts. June 28.
- ✓ 2129 *Frauseria* *Hookeriana*, Nutt.
 Bars of Snake River. Oct 1 ^{*alt.*}
- ✓ 2033 ^{*alt.*} = 2129. *Frauseria* *Hookeriana*, Nutt.
 (Young plant)
 Sands of Almond desert.
 July 13.
- ✓ 1872 *Balsamorhiza* *Hookeri*, Nutt.
 Stony hills. 3000-3500 feet
 May 19. — June (fr.)

- ✓ 1921 ^{mat} Balsamorhiza hirsuta
Grand Rond Valley, near
the mouth of the Saddle
Canyon; dry stony soil
(This is doubtless, ex-
actly, the type local-
ity. June 7. mostly past
bloom.)
- ✓ 1984 ^{var} Balsamorhiza tereticaulis
this may be but it is
peculiar. Subalpine
ridges of Steins Mtns
June 30 (Fruit only seen)
- ✓ 1933, ⁺ Helianthus busckii, Gray
Malheur region. June 16
(dry hill sides)
- ✓ 2166, ⁺ Chamaecrista douglasii, A. N. S.
The common form. July 18.
- ✓ 2111 ⁺ Hulsea nana, Gray
Highish, Mollavee on the sides
in coarse sandy. Aug. 28.

- ✓^x 2157 *Gaillardia aristata*, Ph.
A common plant here.
July 13, Aug 10.
- ✓^x 1990 *Artemisia discolor*, Dougl.
Gravel bars foot of Steins
Vitus July 2nd.
- ✓^x 1991 *Artemisia discolor*, Dougl.
Gravel bars. Steins Vitus
and common July 2.
- ✓^x 2055 *Artemisia arbuscula*, Nutt.
Blue Vitus. Head of Burnt
River. July 22. (Common
south).
- ✓^x 2052 *Bizelonia Douglasii*, Gray.
var. *pinnata*, Gray.
Silvies Valley, in sterile soil
July 20. (A diffuse shrub,
4'-5' high.)
- ✓^x 1947 *Tetradymia glabrata*, Gray.
A shrub - 1-2' - of the desert
region. - June 18.

✓ 2096 *Arnica chamissonis*, Less.
 About cliffs of the highest
 Hallowa mts.
 Aug 23 just coming into
 bloom.

✓ 1929, *Arnica alpina*, Olin
 (*Arnica angustifolia*, (Pohl.)
 Hills of Baker Co., June 15

✓ 2037 *Helenium Hoopesii*, Gray
 Bright yellow. - Pale green
 leaves. Water soaked stream
 - banks of the higher
 Steins' Mts. - ~~Head of~~
 Wild horse and Bivene
 creeks. July 15.

✓ 2188. *Senecio cann.*, Hook.
 Steins' Mts. 30. June.

✓ 2074^a *Corylus edulis*, Gray
 Hallowa mts. - 4° 6°. Aug 11.
~~✓ 2133. *Corylus edulis*, Hook.~~
~~*Corylus undulata*, Gray (The other specimen)~~
~~*C. undulata*, f. Gray~~
 Very common in dry soil - 3° 4°
 Aug 9. 10

✓⁺ 2019 *Stephanomeria protachne*, Eaton
white fl. Sands of bl sand desert.

✓⁺ July 7.

2041. *Lygodesmia spinosa*, Nutt.

Abundant in the desert
region. Base of Steins vintus

✓⁺ 16. July.

2127. *Stephanomeria minor*, Nutt.

Pink. - Open hill sides, Idaho
near Ballard's Landing. (not on
road) Sep 30.

✓⁺ 1988 *Crepis scopolorum*, Coville

Black summits of Steins vintus
mountains July 1st

✓⁺ 2014 *Crepis Androssii*, Gray

Moist subalpine meadows. Above

Almond & alley. July 7.

✓⁺ 2160. *Hieracium Scouleri*, Hook.

Yellow. common. Aug 5.

✓⁺ 2011. *Traximon heterophyllum*, ^{Sargent} ~~Nutt.~~

Steins vintus. Moist hillsides.
July 6.

- ✓ 2132 ^x *Lactuca pulchella*, DC.
Blm. Stoliferous. - a few in
cultivated grounds.
- ✓ 1870 ^x *Dodecatheon leucichne* Greene
Open mountain sides.
3500 feet. alt. May 12 - June
- ✓ 1843 ^x *Dodecatheon* ^{conjugens, Greene} ~~leucichne~~ ^{Gray}
Common on open, steep,
north hillides. April 25
June 8.
- ✓ 2007 ^x *Dodecatheon paniculatum*, Greene
Wet rocks &c. highest
Steins Nitis July 4
- ✓ 1874 ^x *Dodecatheon leucichne*. Greene
- From exactly the same locality.
Nitis 4000 feet. In
partial shade. May 20.
- ✓ 1832 ^x *Primula leucichne* Gray.
(only in the Spring).
Violet. Wet [^]stony situations
April 13. - May 8.

- ✓ 1885^x *Asclepias cryptoceras*,
steep hillsides of Powder
River, 24 May - 15 June
(not rare southward)
- ✓ 2016^x *Eythya Douglasii* Gray
moist meadows of flood
valley, July 7.
- ✓ 2027^x *Fraseria* ~~*Abbricumbis*~~^{*brist.*}
Fruit only. Lower White Sta-
tes, near Ballard's Landing
Sept 28.
- ✓ 1920^x *Fraseria leucosticta*, Gray
mountain ^{Sw.} S. of Union, worthy
the type locality. June 6.
- ✓ 1635^x *Fraseria leucosticta* Gray not rare
doubt last year. Fruit
only. Southern Blue Mtns
July 20.
- ✓ 2101^x *Gentiana Amana*, L., var. *acuta*, Hook. & G.
West Mtns of the Wallawa
Aug 25

- ✓ 2100 *Svertia pinnatis*, L.
 Will you look at this
 again? It differs from
 that species as described
 by Gray in *Flora* in having
 opposite leaves & parts of
 flowers in 4's. You have
 specimens in your herb.
 from me from the Blue
 Mtns, many years ago
 which answer the de-
 scription exactly (?).
- ✓ 2155 *Gilia aggregata*, Spreng
 July 29.
- ✓ 1973 *Gilia terrestris*, Gray
 Stein's Mtns. - steep, stony
 sides. June 28.
- ✓ 2136 *Gilia intertexta*, Steud.
 Blue. - July 12.
- ✓ 2140 *Gilia* (*Calluna*) *gracilis*, Hook.
 May 23.

✓ 2033 ~~Gilia~~ *Goldenia Nuttallii*, Hook.

Abundant desert in sand
July 13.

✓ 1976 *Gilia pungens* Benth.
var. *isquamosa*, Torr.
Cliffs of Steins Butte
June 29. (Common)

✓ 2149 *Neurophyllum breviflorum*, Gray
Common. May 11.

✓ 2142 *Phacelia Menziesii*, Torr.
June 15. Common

✓ 1979 *Phacelia Menziesii*, Torr.
Steins Butte. Dry situations
June 29. (Apparently common
throughout the desert
region.)

✓ 2132. *Phacelia humilis*, Torr. & Gray
Rupr. Dry hillside.
Santa Rosa Butte Nevada
July 11.

✓ 1946 *Emmenanthe pusilla*, Gray.
McAlhairs, Alkali soil
June 20

~~Gray (ined.?)~~

- ✓ 1957. *Gnaphalium parviflorum*.
 Sandy soil of the Malheur
 The type locality. June 21.

- 2042 *Heliotropium curassavicum*, L.
 Camp Creek. Harney Co., (Rare)

- July 18. (Terns black in drying)
 2176 ~~*Lithospermum pilosum*, Nutt.~~
~~*Lithospermum pilosum*, Nutt.~~
 Common in dry soil.

May 20. - July 18.

- 7830 *Mertensia oblongifolia* Don
 one of the earliest flowers
 Stony dry soils. Disap-
 pearing completely soon
 after blooming. April 13

- 1911a *Mertensia paniculata* { Steud.
 mouth of North River (Curt)
 June 1st. A yard high
 commonly grows higher
 in the mountains & blooms
 much later.

1886 ~~mertensia sibirica~~ ~~Don~~
~~var. umbellata~~, ~~Grossman~~, ~~n. sp.~~
 This has been called +
 "M. paniculata" the narrow
 leaved form. I think it
 distinct from both. Dry
 m'tis near Sparta (Union
 Co. ? May 25 - June 3rd
 Commonly growing in
 shelter of small shrubs.
 I have sent it 2 or 3 times
 before.

1910^a *Plagiobothrys hispidus*, Gray
 Dry steep ~~on~~ sides of Stein's
 m'tis (few seen) June 28
 Where the roots touch the
 paper in drying they
 color it a bright red-
 purple

✓ 1945 *Echinops peruvianus* *Redowskii*, Lohm.
~~var. occidentalis~~, ~~Wats.~~
 Malheur (Common) June 20.

1913 *Krynitzkia* & *Tomyana*, Gray.
Hillsides of Pine Creek
June 1st

✓ 2028 ~~*Eutrichium*~~ *Krynitzkia sericea*, Gray.

Along subalpine ridges
Santo Rosa Mts Nevada
July 11. (flowers white)

✓ 2045 *Krynitzkia mollis*, Gray.

A stout rooted perennial of
Honey Valley in moist
alt alpine situation. 18. July.

1906 *Echinopspermum hispidum*, Gray.
Flowers, hillsides of Pine Creek
the type locality. - Fruit
similar habitat on Burnt
River. May 31st - June 15.

1887 *Echinopspermum diffusum*, Lehm.
Perennial! Near Sparta, Tenn. Co
2, 3 May (The large one just coming
into bloom. Stems 30 in.
The small one & the ripe fruit.

1936 *Nicotiana attenuata*, Torr.
 Burs of the Malheur
 17. June. - Just coming into bloom.

2183, *Pentstemon* on Gunderi, Hook var.
Organius, Gray

Purple. The only form of
 the species I have seen except
 1637. Last year which Greene
 calls a n. sp.

1974 *Pentstemon humilis*, Nutt.
 Bleak summits of Steins
 mountains. Growing in
 dense mats a foot or more
 across. June 28.

1980 ^{Doughl.}
Pentstemon confertus var.
^{caeruleo-purpureus Gray}
 A form from Steins Mtns
 June 29.

2173 ^{Doughl.}
Pentstemon confertus var. ?
 Common in moist situations
 (The typical form is not found
 on the E. of the Blue Mtns.)
 June 15 - July 18.

- ✓^x 1900. *Pentstemon oratus*, Dougl.
 Purple. Gravelly bars of N.
 Pine Creek near Snake River
 May 26.
- ✓^x 1937. *Pentstemon acuminatus*, Dougl.
 Dry sandy soil on or near the
 malheur June 18. (Blue)
- ✓^x 1893 *Pentstemon glandulosus*, Lindl.
 Purple. Steep hillsides, espe-
 cially N. slopes of Pine Creek
 &c. May 25.
- ✓^x 2175 *Pentstemon densatus*, Dougl.
 Sulf white. June 13. Aug 6.
- ✓^x 2172 *Pentstemon venustus*, Dougl.
 Sulf purple. Dry hillsides.
 June 13. Aug 6.
- ✓^x 2171 *Pentstemon glaber*, ~~For~~ Pursh
^{form near var. cyanthus Gray.}
 Sky-blue. Short lived perennial
 From the lowest valleys to near
 the tops of the highest mountains -
 June 10. July 18.

✓ 2151 *Callinscia* 47^a
pariflora, Dougl.

✓ 2152 *Mimulus nanus*. Hook. & Arn.
Deep crimson fl. July 12.

✓ 1891 *Mimulus clivicola*, Grunau,
Pink. Hillsides of Pine Creek
May 25.

✓ 1996 *Mimulus exilis*, ~~Hutton~~ Durand
Yellow.

✓ 1951 *Mimulus Bigelovii*, v. *ovatus*. ^{Eng}
(*Grunau* *Arizkii*, Grunau)
Perhaps never published.
Orinson. Hillsides of Cat-
tonwood Creek - near the
Malheur. June 20.

✓ 2005-a *Mimulus primuloides*, Bth.
Higher Stein's Mtns.

✓ 1847 *Synthyris rubra*, Benth.
OK. When the plants first appear
the spike is a dull purple
hence the name, doubtless
April 26. - June

- ✓ 1917 *Castilleja miniata*.
I thought it was when
I got it but it doesn't
seem to match that, but
it is young. Pine Valley
wet meadows. June 3.

- ✓ 2094 *Castilleja Lemmonii*, Gray?
Bracts most intense crimson on
highest ridges of the wall-
lowa mts near the lake.

Aug 23.

- ✓ 2029 *Castilleja ^{linariifolia} ~~linearifolia~~*, Benth.
✓ 2029 ^{cf} Red mts sides, Santa Rosa

mt's July 11. Silius River
(mt's sides) July 20.

This was collected under
2 different nos. but

- ✓ 2110 *Castilleja ~~viscidulosa~~ ^{droopala} ~~viscidulosa~~* ^{Greenm.}
Hardly *viscidulosa* (white) ^{not good}
meadows of the wallowa
mt's near the lake. Aug 28
Greenish yellow

Castilleja pallascens, Greene.

~~*Castilleja pallascens*, Greene.~~

✓ 2144 for the cupus *pallascens*, Gray.

Sony hills, June 3.

✓ 1923 *Castilleja pallida* & *l.*

var. camporum, Greene.
this has been called for me.

Wet subalpine meadows.

3500 feet alt. June 7,

✓ 2064 *Orthocarpus* ~~*laevis*~~ ^{*hispidus*, Benth.}

moist subalpine prairie

4000 feet alt. July 29.

✓ 2034 a ~~*Orthocarpus*~~ ^{*Cordyleanthus capescens*, Gray.}

near hot alkaline spring

Albond Valley. July 14 &

✓ 1927 *Orthocarpus pteris*, Watson.

not rare on dry hills. June 13

✓ 2035 *Orthocarpus imbricatus*, Torr.

Stein's Nitro July 10.

✓ 2059 *Pedicularis racemosa*, Dougl.

very common in nitro

OK.

July 26.

✓^x 2078 *Radicularis bracteosa*, ^{Benth.}
 Subalpine ridges, north
 slopes, Wallawa mts.
 Aug 13

✓^x 2032 *Abronia turbinata*, Torr.
 Sands of Alvord desert.
 July 14.

✓^x 2128 *Megarrhiza organa*, Torr.
 Gulches of Snake River
 Oct 1st Ditch - fast fruit.
 The roots are said to be
 very large, 100 lbs? "Vines"
 10-15-0- 2-3 Seeds to an
 ovary, 1. I had not
 seen it before east of the
 Blue mts.

✓^x 1967 *Verbena bracteosa*, Michx.
 Margin of Shallow Lake
 Malheur Co. June 26.

- ✓ 2043 *Mentha Canadensis*, L.
Camp Creek base of Steins
vults July 18.
- ✓ 1939^a *Scutellaria galericulata*, L.
Harper Ranch - along ditches
Mathews. - 18 June
- ✓ 1956 *Monardella odoratissima*, Benth.
Common in the Mathews
region - June 26.
- ✓ 1889 *Audubertia incana*, Benth.
A low shrub on hillsides
of Eagle Valley, May 23.
- ✓ 2001 *Lophanthus Cusickii*, Grimmer, n. sp.
Dry hillsides - Steins
vults. July 4
- ✓ 1960 *Scutellaria nana*, Gray,
greenish yellow. Steins
vults. where it is not
rare. June 29
- ✓ 2145 *Scutellaria angustifolia*, Rydberg
~~Scutellaria angustifolia~~
Common on hillsides - June 13.

~~1961. Plantago~~

~~Wet meadow in Barru~~
~~Valley, June 25.~~

✓ 2072 *Bumelia vulgaris*, L.

Misam River banks. Rare

Aug 4

✓ 1961 *Plantago major*, L. var.

Wet meadows in Barru Val-
-ley. Aug 4.

✓ 2013. *Schreberia argentea* ^{Walt.}

Shrub & small tree. Margin
of the Alond Desert (and
Common southward) "Bush
brush," "Buffalo brush," ~~Grease~~
"Grease
wood" are local names. -

✓ July 6. - Immature fruit.

✓ 2013a *Leucocoma* sp. (No flowers or fruit)

Parasitic on *Scutellaria*.

✓ 1934 *Chorizanthe Watsoni*, Torr. & Gray
Malheur - 17 June. - North to
Union Co. - Southward.

1959^{*} *Myriophyllum spicatum*, L.

In slow running stream
near Skull Spring Mal-
heur Co. June 24

✓ 1960^{*} *Rumex salicifolius*, Wimm.
by lakes of Barren Valley.
June 25.

210^{*} *Polygonum ~~bistortoides~~ ^{minimum}*, Watson
~~bistortoides~~, ~~Wats.~~
Wet sides, crevices of rocks
etc. Aug 28. Yellowish Nitris

1986^{*} *Polygonum bistortoides*, Pursh
Wet meadows top of Stein's
Nitris. June 30.

2128 *Eriogonum*. ~~no specimen~~
Hill sides of Snake River
Oct 1st (white)

✓ 2046^{*} *Eriogonum elatum*. Don
Southern margin of Steadth
Blue Nitris, Harney Co.
July 19. (Common this year)

- ✓ 1880 *Eriogonum thyroides*, Benth.
 Stony ridges, Union Co.,
 May 21st. (Purple-white)
- ✓ 1963 *Eriogonum douglasii*, Benth.
 Top of Stein's Butte June 25
- ✓ 1957^a *Eriogonum dichotomum*, Dougl.
 Hillsides of the Malheur
 Cottonwood Creek. June 21.
- ✓ 1938 *Eriogonum Baileyi*, Watson
 Greenish white. "Chalky"
 hillsides of the Malheur
 region. June 18.
- ✓ 1953, *Eriogonum cernuum*, Nutt.
 var. *terrestris*, Torr. & Gray
 Too young. - old plants
 much larger!) Hillsides
 of Cottonwood Creek, near the
 Malheur. June 21.
- ✓ 1930. *Eriogonum ochrocephalum*, Watson
 "Chalk" hillsides of Burnt River (and
 Southward?) June 15. Pale yellow.

- ✓¹⁸⁵⁴ *Eriogonum angulosum*, Bth.
Hillsides of Cottonwood
Creek June 21.
- ✓¹⁹¹² *Eriogonum sphaeroph-*
alum ^{Donk.} ~~Donk.~~
this has been called for
me. Hillsides of Pine
Creek June 1st
- ✓²⁰³⁹ *Eriogonum ovalifolium*, Nutt.
Stein's Nitro, near the high
head of Wild-horse Creek
July 15. Just coming into
bloom. But little seen.
- ✓¹⁹⁶⁵ *Eriogonum umbellatum*, Torr.
Stein's Nitro. June 25.
- ✓²¹⁶³ *Eriogonum virginicum* ^{Donk.}
Common on hillsides etc.
Aug 2.
- ✓²⁰¹² *Oenothera dendroidea*, ^{Nutt.} *O. foliosa*, Nutt.
Stream bank 5
Sierra Ranch! Sagebrush
Soil - Pink fl. July 5

✓ 20³⁰ *Spir. stachys occidentalis*,
A suffrutescent herb. ^{Matson}
of alkaline soil. Oregon
Crest valley, near the state
line. July 12.

✓ 21²⁴ *Chenopodium Botrys*, L.
Sand-bank of Snake River
Oct 1st

✓ 1928, *Atriplex Nuttallii*, Watson
Streak Sage plains. Common
June 10.

✓ 20³⁴ *Atriplex Nuttallii*, Watson
this was also called
for me by Dr. Watson, but
it's certainly incorrect.
A shrub a yard high
Boiling Spring, margin
of Alvord Desert and
not rare, north to the mal-
heur, where I got it before
July -

- ✓ 2031, *Suaeda occidentalis*, Watson
Growing in the shelter of
grease-wood. - Oregon buck
valley. July 12.
- ✓ 2044. *Suaeda depressa*, Wats.
Hamey Valley in alkali
soil. July 18.
- ✓ 2043^a *Suaeda intermedia*, Watson
Hamey Valley near Malheur
Lake. July 18
- ✓ 1939 *Suaeda intermedia*, Wats.
Valley of the Malheur
River. June 18.
- ✓ 2070 *Urtica Lyallii*, Watson
Purple stems. about sub
alpine springs &c. 4-6000
ft. alt. Aug. 4. - 4°-5°
- ✓ 2069. *Urtica gracilis*, Ait.
5°-6°. Common at 3000-3500
ft alt. Aug 3.

- 2162 *Euphorbia* ~~*glandulosa*~~ ^{*glandulosa* Engelm.} Michx.
Generally distributed up
to about 4000 feet alt.
Aug 5.
2098. *Betula glandulosa*, Michx.
Wet situations in the high
✓ highest mtns. Aug 25.
- 1909 *Populus trichocarpa*, Torr. & Gray
✓ Gulches of Pine Creek
near Snake River.
May 31. - Sep. 25.
- 1889^a *Populus trichocarpa*, Torr. & Gray
✓ Gulches near Pine Valley
May 23 - Oct 1st.
- 1839 *Populus trichocarpa* Torr. & Gray
✓ A common tree. Gulches
3500 feet alt. May 9.
1997. (*Salix californica* Torr. & Gray)
✓ (*Salix californica* Torr. & Gray)
In small pond foot of
Stein's mtns, near Big Pine
Creek. July 3.

- ✓ 2075 *Goodenaea menziesii*, Link.
A common plant on low
moist. shade, Aug 13
2062. *Habenaria Alaschensis*, Wats.
Long nitid rays. 4000
feet alt. in open woods
July 28. (Greenish fl.)
- ✓ 2137 *Allium acuminatum*, Hook.
Crimson. June 24-July 12.
2000. *Allium attenuifolium*, Willd.
White. In wet gulches
of Stein's nitus near
Divine Creek. July 4.
1862. *Allium macrodon*, Wats.
White. Bulbs commonly grow-
ing in clusters.
May 10. - June 10
- ✓ 1861. *Allium Cuscuta*, Wats.
Greenish white or dull pur-
ple. Stony hills. 3500 feet
alt. May 7.

- ✓^x 1888 *Allium pleianthum*, ^{Watson}
 Common. Stony flats near
 Eagle Creek. May 23.
- ✓^x 1984^a *Allium Pusickii*, Watson
 Top of Steens' Mtn.
 June 30.
- ✓^x 2177. *Brodiaea Douglasii*, Watson
 May 13 - June 17.
- ✓^x 1907. *Camassia pusickii*, Watson
 1½ - 3° - Gulches & hillsides
 of Pine Creek near Snake
 River. May 31st
- ✓^x 1831 *Fritillaria pudica*, Spreng.
 Common. 17. April (one
 of the earliest spring
 flowers)
- ✓^x 1869 *Erythronium grandiflorum*, ^{var. ~~parviflorum~~ ^{Watson}}
 Bright yellow. 3500-4000
 feet alt. blooming very thickly
 where snow drifts deep. May 12

- ✓ 1894 ^{names.} *Calochortus elegans*, var
white. Abundant on
Pine Creek May 25.
- ✓ 2060 *Lygadenus elegans*, Pursh
greenish white. Stream-
banks on lower Mithis 4000
feet alt. July 28.
- ✓ 2094^a *Lygadenus elegans*, Pursh
fruit only 1 From the higher
Mullowna Mithis where it
occurs in great profu-
sion. Aug 23.
- ✓ 2076 *Phlegopteris dryopteris*, fr
little common. Rare.
- ✓ 2091. ~~*Modiola elegans* Eaton~~
~~Mullowna Mithis~~
Mullowna Mithis. Aug 23
- ✓ 2165 *Sidalcea campestris*, Greene

24
 18 May 1899
 J. M. G.

12.1
 15.4
 12.9
 12.8
 12.5

Names with data of specimens
with data, from Wm C. Cusick
Union, Oregon July 5/88

- 1907^a *Arabis arcuata subvillosa*, Watson
Hillman of N. Pine (Creek) May 31.
98. Violet flowers. (Pepper's determination)
2095. *Oxytropis cusickii*, Munro (n. sp.)
Greenish white. Alpine & subalpine ridges
of the Wallawa Mts. Aug 23
- 2164 *Goyophytum paucissimum*, P. & G.
Common in dry soil July 29.
- 2164 *Goyophytum lasiocarpum*, Munro
Common in dry situations, July 29.
- 2232^a *Smilacina amplexicaulis*,
Seven Seils Mts of Idaho 7000 feet
alt. July 4.
- 2291 *Baer's Deweyana Bolanderi*, Benth,
Stream bank etc. Wallawa Mts (and
common). July 31.
2293. *Lesquerella occidentalis* Wats.
common

Determined by
Prof. Piper

- (2293) Subalpine nitid sides of the
Wallawa Mtn near the lake.
7000? feet alt. July 31. '98
[I think this should be L. Douglasii]
- 2296^a *Senecio pygmaea* Rob.
Subalpine Wallawa Mtns. 7000 feet
alt. July 31.
- 2295^a *Echinocystis Oregana* Leuzner.
Fruit only. Dry soil near Snake River
near Baccus's Landing. July 31.
(Megarrhiza Oregana!)
- 2301^a *Arenaria sajanensis* Willd
Cliffs of Wallawa Mtns. 9000 feet
alt. July 31.
- 2305^a *Dryas octopetala* L.
Alpine Wallawa Mtns. white fl.
abundant but ^{scarcely} past bloom.
Aug 3. '98
- 2308^a *Senecio Fremontii* occidentalis. Gray.
Alpine Wallawa Mtns where it
is common. Aug 3.

- 2313 *Ledum glandulosum*, Nutt.
East fork of Wallawa river: 6000?
Subalt. (and common), Aug 4.
A low shrub - 2'; white flowers.
in bogs, etc. Deciduous of the
leaves used by hunters "astea"
- 2327^a *Ranunculus Eschscholtzii*, Schlecth.
("Probably") South slope of the Wallawa
river: head waters of Eagle Creek
Sept 1st.
- 2322^a *Bastillea rustica*, Piper. (n. sp.)
On limestone cliffs of the Wallawa
river toward the source. Dark, deep
red fl. Aug 9, -'99, (You have
all the specimens collected.)
- 2343^a *Aplopappus* ^p*naum.* Eulm.
White flowers (rays & disk!)
Low (1') shrub of the cliffs of
Snake river, Idaho side - near
Ballasch's landing. Sep. 20.
- 2331^a *Lupinus* (?) sp.
Pale blue. Trout Creek in South
slope of the Wallawa river Sept. 1st
No name was given me for this
Prof. Piper saying I must wait
for Dr. Robinson's revision of the genus.

- 2346^a *Eriogonum divergens*, T. & G.
 Blue. Gravelly bottoms of Pin
 creek near Snake river, Sep + 15⁻
 (Quite out of season.)
2347. *Viscaria californica*, Choisy
 Parasitic on Potatoes & *Grindelia*
manana near garden in
 La Grande Oct 6.
 (There should be label for this,
 but not for
- 2347^a *Xanthium spinosum* L.
 2347^a Near La Grande, - introduced
 Oct 8.
2358. *Juniperus occidentalis*, Hook
 (Prof Sargent's determination)
 Hills of Union Co. Sep 21.
 Slow wide branching tree; rare
 here.
- 2951^a is a mistake I have not
 got near to that number yet -